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POLICY RESEARCH NOTES

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August 1981

For professionals in Public Agricultural and Food Policy
Research, Teaching, Extension, Policymaking

INTRODUCTION

The quadrennial cycle of national policymaking ushered in with 1981 is a reminder of the evolving scope of current agricultural and food policy. In this year's policymaking, the broad concerns of the public about its food production, the welfare of farm producers and rural communities, food and fiber consumers and foreign users will be deliberated and acted upon jointly. This also underlines the need for information flow and joint effort among professional policy workers in the diverse problem areas and with diverse functions. The objective of this newsletter is to help provide communication linkage among these policy workers. Requests for copies of earlier issues of these Notes and for the latest Policy Workers List, and comments and suggestions about them, may be sent to either address below.

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Policy Research Notes is a cooperative effort of the North Central Regional Public Policy Research Committee and ESS. The Notes are prepared by R.G.F. Spitze, Department of Agricultural Economics, 1301 W. Gregory Drive, University of Illinois, Urbana, Illinois 61801, and Kenneth C. Clayton, Food and Agricultural Policy Branch, ESS, 500 12th Street SW., Washington, DC 20250.

ANNOUNCEMENTS

Thirty-First National Public Policy Education Conference Announced

The next annual occasion for the longest continuous educational conference series dealing with agricultural and food policy will be the NPPEC, on September 14-18, 1981, to be held at Stone Mountain State Park, near Atlanta, Georgia. Although the conference is geared primarily to policy extension workers, it is of interest to others in a broad range of agricultural and food policy work. Sponsored by the Farm Foundation and planned by an elected National Committee, this will be the 31st year of the program.

The first day is scheduled for registration, regional committee meetings, and a traditional kick-off dinner -featuring good ol' Southern food. The conference closes with a session on Involvement and Methodology in Public Policy Education. In between, topics for discussion include: (1) the role of government in food programs, income maintenance, etc.; (2) policy issues in support of research and extension programs; and (3) agriculture in the '80s -- policies to manage supply and demand.

For further information, contact Warren Trock, NPPEC Chairman, Cooperative Extension Service, Department of Economics, Colorado State University, Fort Collins, CO 80523.

Second Consortium on Trade Research Planned

The second semiannual consortium on trade research is tentatively planned for June 24, 25, and 26 in Washington, D.C. Formed in June 1980 between USDA's Economics and Statistics Service and university researchers, the consortium is a cooperative undertaking between ESS and various universities.

The Consortium's objectives are to:

- o Foster sustained efforts in international trade research with emphasis on the domestic impacts of policy developments in international commodity markets.
- o Encourage and facilitate interaction between the International Economics Division and university trade policy researchers.
- o Provide a forum for the exchange of research results and the identification of problems and policy issues requiring research.

Current plans are to convene the consortium on a wide array of research topics twice yearly.

For more information contact one of the co-chairmen, Alex McCalla, Department of Agricultural Economics, University of California, Davis, CA 95616, or Charles E. Hanrahan, IED ESS USDA, Room 348, 500-12th St., S.W., Washington, DC 20250.

Southern Extension Committee Develops Slide-Tape Program on Policy Issues in the '80s

A slide tape program "Food and Agriculture Policy Issues in the 1980s" has been prepared by the Southern Extension Public Affairs Committee with support from the Farm Foundation. It is based on Food and Agriculture Policy Issues for the 1980s, reported in previous Notes, and developed by a committee of authors organized by the National Public Policy Education Committee.

The slide-tape sets are now available and may be ordered from W. Keith Searce, Extension Economist, Department of Agricultural Economics, 509 Agriculture Hall, Oklahoma State University, Stillwater, Oklahoma 74074.

The cost is \$50 per set which includes a 140-slide tray, 140 slides, two scripts, and two tape cassettes, one marked for automatically operated projection and one for manual projection.

Inquire about this committee effort from Paxton Marshall (ph 703-961-6848), Department of Agricultural Economics, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.

New Project Being Developed by Regional Policy Research Committee

A new regional research project is in the development stage on selected problem areas of future price and income policy for agriculture and food, as the present North Central Regional Project (NC-152) nears completion. Analysis of Food and Agricultural Policies for the Eighties, North Central Regional Research Publication No. 271, 1980, 163 pp., has been released from that project, and others are in process, dealing with Grain Reserves and Food Stamps.

Brainstorming was pursued on the possible focus of the new project at the October, 1980 meeting of the Technical Committee and draft material is now being circulated among interested researchers across the country. A planning meeting will be held July 29-30, 1981, following the AAEA Meetings at Clemson, South Carolina.

For further information about these publications of the present project or to indicate interest in a proposed project, contact any present member of the Technical Committee of NC-152, including Marshall Martin, Chairman, Purdue University, or Bob Spitze, Vice-Chairman, University of Illinois.

Soil Conservation Is Subject of National Symposium

A national symposium focusing on policy issues and the research agenda, under the theme, "Policy, Institutions and Incentives for Soil Conservation," will be held May 19-21, 1981, at the Holiday Inn Illinois Beach Resort, Zion, Illinois. It is being sponsored by a North Central Regional Committee (NCR-111), the Farm Foundation, ESS, USDA, Conservation Foundation and Soil Conservation Society.

Purposes of the symposium are to review public issues relating to formulation and implementation of soil and water conservation programs and to identify socio-economic research that is needed to enhance public and private resource management decisions. The product is to be a report for managers, administrators and legislative committees to plan and implement activities that contribute to informed decisions about the use and management of soil and water resources.

For further information contact Harold G. Halcrow, Department of Agricultural Economics, University of Illinois, 305 Mumford Hall, 1301 W. Gregory Drive, Urbana, IL 61801.

Structure, Taxes, and Educational Approaches on Regional Committee Agenda

The North Central Public Policy Education Committee launches a new activity as two are completed. An educational publication, which can also be used as six separate leaflets, dealing with farm structure issues (announced in last issue of Notes) just been completed as The Family Farm and Other Choices - Issues Concerning the Structure of Agriculture, North Central Regional Extension Publication 143,

December 1980, 31 pp. For information about this effort and to request a copy, contact either of the editors: Harold D. Guither, Department of Agricultural Economics, 305 Mumford Hall, University of Illinois, 1301 West Gregory Drive, Urbana, IL 61801; or Otto C. Doering, Department of Agricultural Economics, Purdue University, West Lafayette, IN 47907.

An earlier released publication designed for educational programs concerned with problems of property taxes has been revised and is now available as, Property Taxes - Reform, Relief, Repeal?, North Central Regional Extension Publication No. 39 (Rev.), 1980, 35 pp. Inquire about availability from the editor, Arley D. Waldo, Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, MN 55108.

Looking to future activities, a subcommittee has been formed by the North Central Public Policy Education Committee to examine alternative methods for conducting educational programs in public policy. Particular emphasis is being directed to the use of micro-computers in the educational process, such as for "hands on" simulation of economic impacts associated with alternative policy actions and remote delivery of educational subject matter. Comments and requests for further information should be directed to the subcommittee chairman, Charles Gratto, Department of Economics, Iowa State University, Ames, IA 50011.

Great Plains Food and Agricultural Policy Committee Plans to Continue

A regional committee, "Food and Agricultural Policy in the Great Plains," established in 1975 as GPC-5, held its meeting October 2-3, 1980, in Denver, Colorado. Discussions were directed at several current policy issues particularly relevant to that region: the subsurface water supply; future agricultural and policy developments for the 1980s; and land ownership trends. Plans were made to extend the work of this committee in order to emphasize the continued research needs on public policy issues.

Leadership for future programming will be carried by Glen Vollmar of Nebraska, James Osborn of Oklahoma, and Ken Nobe of Colorado.

MINIMIZING EROSION ON CULTIVATED LAND: CONCENTRATION
OF EROSION PROBLEMS AND THE EFFECTIVENESS
OF CONSERVATION PRACTICES

Clayton Ogg and Arnold Miller*

Introduction

Despite a longstanding commitment to reducing soil erosion, American agricultural policy has evolved largely in the absence of an information and analytic base by which to effectuate that policy. Prior to 1977, there were essentially no empirical estimates of even the national average erosion rate, let alone reliable data on the distribution of the erosion problem. In 1977, however, the Soil Conservation Service undertook the first of its National Resource Inventories (NRI). Where sheet and rill erosion ^{1/} is concerned, the NRI provides statistically reliable estimates of not only the dimensions of the erosion problem itself, but also of the key physical parameters underlying it. Consequently, the NRI can be used to provide national policymakers with basically the same types of information that are used to develop conservation plans for individual farms. The NRI data base thus offers an unprecedented opportunity to learn from the shortcomings and accomplishments accumulated over a fifty year evolution of soil conservation programs.

Early Federal efforts at erosion control emphasized the withdrawal of highly erosive land from cultivation. The legislation authorizing the Soil Conservation Service, for example, specified that the Secretary of Agriculture could require enactment and enforcement of State and local laws imposing permanent restrictions of the use of private land as a condition of assistance provided through that agency (Sect. 590c., Soil Conservation and Domestic Allotment Act, as amended). Although many of the State laws authorizing conservation districts contain provisions that authorize the regulation of problem lands, few, if any instances are recorded in which this regulatory authority has actually been used. Consequently, most of the public encouragement to divert land from cultivation has come through short- and long-term setaside and diversion programs and through cost-share programs, primarily the Agricultural Conservation Program. Even these programs have not historically contained explicit provisions to ensure that fragile lands will be taken out of cultivation. Where soil conservation programs themselves are concerned, the Federal effort has primarily been focused on the installation of conservation measures intended to reduce erosion while land remains in cultivation.

When considered from the viewpoint of individual farmers, and without compensation, shifting fragile land out of cultivation is regarded as the most ambitious and least acceptable approach to reducing erosion. As indicated in an economic analysis of conservation in the Corn Belt, erosion reduction in general can increase aggregate farm incomes only when commodity production is reduced significantly (Taylor and Frohberg, 1977). Another study concluded that reducing the intensity of land use would be relatively attractive from the perspective of individual farmers only during periods of low commodity prices, and then only for the most erosive land (Ogg and Heimlich, 1980). In a national study of erosion problems it was found that the most efficient approach to erosion control would substantially

*Clayton Ogg and Arnold Miller are Agricultural Economists, Food and Agricultural Policy Branch, ESS USDA. The opinions expressed are those of the authors and not necessarily of USDA.

^{1/} Sheet and rill erosion refers to the fairly uniform removal of soil particles as a result of the impact of raindrops and the scouring action of runoff.

change the location of crop production in the U.S., although how this would be implemented was not considered (Heady, 1976, Wade and Heady, 1977).

In this paper NRI data are used to explore two fundamental issues of soil conservation policy. The first deals with the concentration of sheet and rill erosion problems over a relatively small area. The second issue centers on the ability of existing conservation technology to reduce erosion rates on fragile lands to acceptable levels while land remains in cultivation. If the data support the hypotheses that (1) erosion problems are highly concentrated and (2) existing conservation practices are incapable of controlling erosion on fragile lands, then a greater reduction in soil erosion might be achieved by reforming soil conservation efforts in favor of diverting fragile lands from cultivation. This would suggest a new focus for economic research related to conservation and to farm programs in general.

Concentration of Erosion

Sheet, rill, and wind erosion on cultivated land totaled 2.7 billion tons in 1977. Of this total, some 875 million tons was due to wind erosion and the remaining 1.8 billion tons was from sheet and rill erosion.

Conservationists generally agree that most soils can tolerate some level of erosion without significant adverse impacts. Existing soil loss tolerances, however, have been seriously criticized in recent years as inadequate to guide conservation policy and programs (Shrader, 1980; McCormack and Larson, 1980; Miller, 1981; Miller and Benbrook, 1981). Nonetheless, this report uses the conventional cropland soil loss tolerance of 5 tons per acre annually as the threshold beyond which erosion becomes excessive.

When analyzed independently of wind erosion, a total of 894 million tons of sheet and rill erosion were found to exceed the 5 ton tolerance on cultivated land in 1977. When all cropland is considered, a full 78 percent of the excess sheet and rill erosion has been reported as concentrated on less than 6 percent of the cropland acreage; over one-third of the excess erosion was concentrated on less than 1 percent of the acreage (USDA-RCA, 1980, pp. 3-14).

Without considering sheet and rill erosion, 565 million tons of wind erosion exceeded the 5 ton tolerance on cultivated land in 1977. Analyzed jointly, approximately 1.6 billion tons of sheet, rill, and wind erosion exceeded the conventional tolerance. The concentration of combined sheet, rill and wind erosion that exceeded 5 tons per acre annually on land cultivated in 1977 is shown in Table 1.

For more than 60 percent of the land cultivated in 1977, combined rates of sheet, rill, and wind erosion did not exceed 5 tons per acre. In contrast, 61.5 percent of the combined excess erosion was concentrated on 6.4 percent of the tilled land. Over 21 percent of the combined excess erosion was concentrated on less than 1 percent of the cultivated acreage. Almost one-third was concentrated on less than 2 percent of the acreage. On a larger scale, nearly 70 percent of the combined excess erosion was concentrated on 8.6 percent of the tilled land.

Clearly, the erosion problem is highly concentrated on a relatively small amount of the acreage that was used to grow row crops and small grains in 1977. Of interest in being able to target conservation investments onto these areas would be an analysis of the yield impacts of erosion for the nation's erosive soils. At the present time, erosion rates and soil depth remain the most economically sound basis for targeting conservation incentives. These two variables are, however, highly correlated, with high erosion rates generally occurring where soils are shallow enough to be seriously damaged by erosion (Benbrook, 1980).

Separate analyses indicate that the potential for serious erosion problems is also concentrated in a relatively small land area, at least for sheet and rill erosion. This conclusion applies not only to readily available cropland but also to potential cropland, although differences in the proportions of cropland and potential cropland with serious erosion potential were found to exist (Miller, 1981).

The Need to Focus on the Major Erosion Areas

The NRI also provides the first real opportunity to identify what has been accomplished by five decades of soil conservation planning and subsidies directed at these problems. It indicates that there has been considerable success at getting practices on the ground. For example, almost half of the land cultivated in 1977 was treated with some form of conservation tillage, contouring, or crop residue use (Table 2). Much smaller acreages (27.5 million acres) were treated with terraces and significantly less area was treated with stripcropping. Farmers appear to be acting as a number of economists anticipated by selecting cost-effective practices (Taylor and Frohberg, 1977; Wade and Heady, 1977; Ogg and Heimlich, 1980).

Surprisingly though, contouring, conservation tillage, and crop residue use tend to be located on the more nonerosive lands. Conservation programs appear to be less successful in areas where such practices are badly needed. This is no doubt attributable to the physical and economic difficulties of treating highly erosive fields; existing policies which direct technical and financial assistance according to an across-the-board soil loss tolerance also tend to divert funds to areas where soil loss problems may not be terribly severe. Terracing is the only practice applied to a high proportion of at least the intermediate range of problem areas. However, terracing is fairly minor in its overall impact compared to the other practices because only a relatively small area is terraced. The data imply primarily that past and current incentives are apparently not focusing the most popular and cost effective practices to the areas where they are needed most. Thus, one of the most pressing problems for conservation policy appears to be a failure of incentive mechanisms to focus solutions on areas accounting for most of the erosion.

Adequacy of Treatment Measures

Our second hypothesis concerns the feasibility of reducing erosion on problem lands to acceptable levels using measures that allow the land to remain in cultivation. The NRI provides, again for the first time, a means for determining on a per-acre basis the protection achieved by each of the primary practices applied to areas with varying potential for erosion. The inherent erosion potential in column 1 of Table 3 is the erosion rate that would occur if the land had been left in continuous fallow, tilled directly up and down slopes. From a policy perspective, these data are important because they allow the potential erosion problem at the site to be compared with the control that has been and can be achieved. The inherent potential for erosion is calculated as the product of the RKLS factors of the Universal Soil Loss Equation (USLE). These factors reflect the erosion impact of rainfall, soil erosiveness, and slope gradient and slope length, assuming that land is in continuous fallow, tilled up and down slopes.

Column 2 shows the actual mean erosion rates reported in the NRI for all cropland with inherent potential for erosion of 20 or more tons per acre annually. By contrast, column 3 shows the erosion rates that would prevail on the same land in the absence of treatment to reduce erosion. The untreated condition was simulated using the mean value of the cover and management factor reported for NRI sample points that were cultivated in 1977 but on which no reduced tillage or crop residue practices were used. Tillage operations were assumed to be performed directly up and down slopes on land in the untreated condition.

Because data in column 3 reflect erosion rates on cultivated land in the untreated condition, they were used as the basis for evaluating the effectiveness of individual practices and combinations of practices. For each row of data in Table 3, the effectiveness of erosion reduction practices can be measured as the difference between the untreated erosion rate shown in column 3 and the corresponding rate shown for the particular practice in question.

Conservation practices have achieved some substantial erosion reductions, especially when applied to land with the highest erosion potential. The greatest average proportional reduction from the untreated condition was 54 percent. This occurred on land treated with a combination of contour farming, minimum tillage, and crop residue use. This particular combination of practices was used on only 900,000 acres in 1977. Other practices were used on larger acreages but were less effective, on average. For the remaining practices, sheet and rill erosion rates averaged the following percentages of the corresponding rates for cultivated land not treated for erosion control: terraces and supporting practices (including some minimum tillage and crop residue use), 53 percent; contour farming and crop residue use, 53 percent; contour farming, 61 percent; minimum tillage and crop residue use, 65 percent; minimum tillage alone, 69 percent; terraces and supporting practices alone, 71 percent; and crop residue use alone, 84 percent.

It should be noted that minimum tillage is loosely defined in the NRI to include any reduction from what could be considered normal tillage for the area. With a stricter definition of minimum tillage, this practice could achieve more significant proportional reductions in per-acre erosion rates. Yet this would cause minimum tillage to appear considerably less significant in terms of total acres treated and imply a lower level of farmer acceptance of the practice. It is also possible that certain other practices used in combination could achieve substantially lower erosion rates than the averages in Table 3. For areas in the southern States, for example, reduced tillage used in combination with winter cover practices can achieve reductions in erosion much greater than the average rates found in Table 3.

There is very little doubt, however, that for much of the 85.9 million cultivated acres with inherent erosion potential of 20 tons per acre and above, available treatment measures are not able to achieve erosion control levels considered adequate by many soil experts. This would be particularly true for the cultivated land accounting for most of the excess erosion in the United States.

Policy Making with Imperfect Knowledge

Important benefits from soil conservation also result from water quality improvements. These benefits vary depending on water use and other physical and economic variables, not necessarily correlated with soil erosiveness. Sharply focusing conservation investments will dramatically impact sedimentation problems, but not necessarily where this is most needed. Much research is required before economic criteria are to be given adequate weight in making water quality investments.

Despite the fact that economic benefits from conservation on various soils may not be accurately established for many years, policy decisions will be made, albeit with incomplete knowledge. Policymakers facing tight budget constraints may be inclined toward encouraging wide application of low cost practices or activities which simultaneously benefit other farm program objectives, or both. Focusing incentives where there is now an identified physical problem should have obvious appeal.

Summary and Conclusions

Soil conservation problems are highly concentrated with a small fraction of the cultivated acreage accounting for the majority of the excess erosion. Part of the difficulty on these lands is that incentive schemes have not focused conservation investments on soils that are the most in need of treatment. However, the NRI data also demonstrate that erosion control practices are not capable of providing an adequate level of control on these lands so long as they are cultivated. At least a partial reduction in their use for row crops and small grains would be required if erosion rates are to be brought anywhere close to the rates conventionally considered to be acceptable.

To adequately treat these lands could impact the location and possibly the flow over time of yearly crop outputs in the U.S. This implies that, in addition to the considerable effort already devoted to studying the cost effectiveness of various conservation measures, there is a need to consider the broader economic impacts of conservation policy as they relate to the larger set of agricultural policy issues. In particular, a soil reserve program designed to remove highly erosive land from cultivation in years when the full production potential of our agricultural plant is not required should perhaps be considered. Such an approach could foster the development of more rational and mutually supportive farm programs.

Bibliography

Benbrook, Charles

"Review of the Yield Soil Loss Simulator," Prepared for the Resources Conservation Act Coordinating Committees. August, 1980.

Heady, E. O.

"Resource Adequacy in Limiting Nonpoint Pollution," Paper No. 76-2562, presented at the 1977 winter meeting, American Society of Agricultural Engineers, December, 1976.

_____, K. J. Nichol, and J. C. Wade

"Economic Trade-Offs to Limit Nonpoint Sources of Agricultural Pollution," Water, Air, and Soil Pollution. Vol. 5(4):415-430, 1976.

McCormack, D. E. and Larson, W. E.

"A Values Dilemma: Standards for Soil Quality Tomorrow," presented at the summer meetings of the Soil Conservation Society of America, 1979 (mimeo).

Miller, Arnold

"Impact of Expanding Agricultural Production and Erosion: Land Resources, Conservation Practices and Policy Choices," prepared for the Structure of Agriculture Project, USDA, 1981.

_____, and Charles Benbrook

"Soil and Water Conservation: Production Pressure, Conventional Wisdom, and Research Needs," presented at Soil and Water Resources: Research Priorities for the Nation, Madison, Wisconsin, February 23-27, 1981.

Nicol, K. J., E. O. Heady, and H. C. Madsen

Models of Soil Loss, Land and Water Use, Spatial Agricultural Structure, and the Environment, CARD Report, Iowa State University, Ames, Iowa, 1974.

Ogg, Clayton W. and Ralph Heimlich

"Implementation of New Conservation Programs and the Need to Respond to Changng

Shrader, W. D.

"Effect of Erosion and Other Physical Processes on Productivity of U.S.
Croplands and Rangelands," Office of Technology Assessment, U.S. Congress, 1980.

Taylor, C. R. and K. K. Frogberg

"The Welfare Effects of Erosion Controls, Banning Pesticides, and Limiting
Fertilizer Application in the Corn Belt," American Journal of Agricultural
Economics, Vol. 59(1):25-36, 1977.

U.S. Congress

Food and Agricultural Act of 1977, Public Law 95-113, Section X.

Soil Conservation and Domestic Allotment Act, Section 590c, 1936.

U.S. Department of Agriculture, Soil Conservation Service, Appraisal
1980: Parts I and II, Resources Conservation Act Documents, 1980.

Vocke, G. F., E. O. Heady, W. G. Boggess, and H. J. Stockdale

Economic Impacts on U.S. Agriculture from Insecticide, Fertilizer, Soil Loss,
and Animal Waste Regulatory Policies, CARD Report 73, Iowa State University,
Ames, Iowa, 1977.

Wade, J. C. and E. O. Heady

"Controlling Nonpoint Sediment Sources with Cropland and Management: A National
Economic Assessment," American Journal of Agricultural Economics Vol.
59(1):13-24, 1977.

Table 1--Combining sheet, rill and wind erosion on land used
for row crops and small grains*, 1977

Combined rate of erosion	:	Acres	:	Tons of excess erosion 1/	:	Percent of acres	:	Percent of excess erosion
	:	--Thousands--	:		:	--Percent--	:	
0 - 4.9	:	203,247	:	---	:	60.2	:	---
5 - 9.9	:	67,152	:	133,487	:	19.9	:	8.5
10 - 14.9	:	24,976	:	180,444	:	7.4	:	11.4
15 - 19.9	:	13,162	:	162,112	:	3.9	:	10.3
20 - 24.9	:	7,557	:	131,322	:	2.2	:	8.3
25 - 29.9	:	5,610	:	125,269	:	1.7	:	8.0
30 - 39.9	:	6,348	:	187,754	:	1.9	:	11.9
40 - 49.9	:	3,507	:	138,188	:	1.0	:	8.8
50 - 74.9	:	3,307	:	180,473	:	1.0	:	11.5
75 - 99.9	:	1,214	:	98,311	:	.4	:	6.2
100 - 149.9	:	643	:	73,428	:	.2	:	4.7
150 - 199.9	:	388	:	64,972	:	.1	:	4.1
200 and over:	:	420	:	99,125	:	.1	:	6.3
Total	:	337,531	:	1,574,885	:	100.0	:	100.0

*Includes summer fallow.

1/ Number of tons exceeding 5 tons per acre annually.

Source: Computed from National Resource Inventory data, USDA, SCS, 1978.

Table 2--Inherent potential for sheet and rill erosion cropland treated and not treated with selected practices, 1977

Inherent erosion potential 1/ (tons per acre per year)	All readily available cropland 2/	Terraced (using slope length without terraces):	Not terraced	Treated with : contouring, : minimum tillage : or crop : residue use	Not treated with : contouring, : minimum tillage : or crop : residue use
Millions of acres					
0 - 4.99	109.0	0.5	107.5	51.7	53.1
5 - 9.99	92.6	3.0	86.4	44.7	39.1
10 - 14.99	58.7	4.0	54.5	27.2	25.2
15 - 19.99	33.4	2.1	29.5	13.7	15.0
20 - 24.99	20.6	2.4	17.9	7.7	9.8
25 - 29.99	14.8	2.1	12.7	5.2	6.9
30 - 39.99	17.9	3.8	15.3	6.5	8.3
40 - 49.99	12.0	1.6	10.5	4.0	6.1
50 - 99.99	26.6	5.4	24.4	8.4	14.5
100 and over	20.7	2.6	20.0	6.2	12.1
Total acres	406.3	27.5	378.8	175.3	190.1
Average potential tons per acre	24.8	44.6	24.7	19.8	28.1

1/ RKLS product; assumes C = 1.0 and P = 1.0.

2/ Excludes 6.9 million acres of wild hay and mountain meadows.

Source: Computed from National Resource Inventory data. USDA-SCS, 1978.

Table 3--Potential and Actual Sheet and Rill Erosion Cropland Treated with Selected Practices in 1977

Inherent potential for erosion 1/	All land in row crops and small grains		Crops residue use alone		Minimum tillage alone		Contour farming alone (assumes C = .32, P is actual NRI)		Minimum tillage and crop residue use (Actual NRI)		Contour farming: minimum tillage and crop residue use (Actual NRI)		Terraces and supporting practices (Actual NRI)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)				
Average erosion rate in tons per acre per year														
0- 24.99	6.0	7.1	6.4	5.5	3.8	5.3	4.1	3.6	4.2					
25- 29.99	7.1	8.7	7.3	7.3	5.1	6.5	4.8	4.6	4.8					
30- 34.99	8.3	10.4	9.3	8.3	6.0	7.1	5.6	4.0	5.4					
35- 39.99	9.5	12.0	11.0	7.4	7.0	9.2	6.9	5.7	6.3					
40- 44.99	10.9	13.6	13.2	9.3	7.4	9.4	7.7	5.8	6.8					
45- 49.99	11.6	15.2	12.3	11.2	9.3	8.6	7.8	5.8	7.0					
50- 54.99	14.4	19.5	15.7	16.7	11.2	13.0	10.3	3.4	9.4					
55- 59.99	19.8	27.7	20.2	17.6	16.7	16.6	11.3	16.2	14.4					
60- 64.99	27.8	38.3	32.4	26.4	25.4	25.6	16.2	17.5	18.9					
65- 69.99	38.8	54.4	39.5	26.6	35.3	26.3	32.5	24.0	33.2					
70- 74.99	68.7	96.0	72.0	30.0	73.4	45.0	52.1	38.3	2/54.6					
Acres in millions	85.9	85.9	18.3	2.1	6.2	4.9	3.0	0.9	17.9					

1/ Product of the R, K, L, and S factors in the soil loss equation as reported for NRI sample points. Assumes C and

2/ Average erosion rates on land with RKLS products of 200 or more under without terrace condition.

Source: Computed from National Resource Inventory data, USDA, SCS, 1978.

U.S. AGRICULTURAL EXPORTS: PROSPECTS FOR THE 1980's
Cecil W. Davison*

Agricultural exports are growing in importance to an expanding constituency in the United States. In the past 10 years, U.S. agricultural exports have grown fivefold from \$7.7 billion in calendar 1971 to \$41.3 billion in 1980, and may attain \$47 billion in 1981 (17, p. 1; 15, p. 5). 1/ Parties expressing interest in this expanded trade include the executive and legislative branches of government, farmers, and the consuming public. The Trade Act of 1979 (PL 96-39) implements agreements signed by the Carter Administration in the Tokyo Round of Multilateral Trade Negotiations to reduce industrial and agricultural trade barriers among members of the world community (2). Congress expressed its interest in the expansion of agricultural exports in the Agricultural Act of 1980 (PL 96-494), enacted December 3, 1980. Section 210 of the Act requires the Secretary of Agriculture to determine for the next 5 years:

- world food, feed, and fiber needs;
- estimated U.S. and world food, feed, and fiber production capabilities;
- potential new or expanded foreign markets for U.S. agricultural products;
- the potential for the development of international agreements for the exchange of U.S. agricultural products for natural resources, including energy sources, or other commodities and products needed by the United States;
- the steps the United States must take to
 - (a) increase agricultural export trade, and
 - (b) obtain needed natural resources or other commodities and products in exchange for agricultural products, to the maximum extent feasible.

The study was to be completed and a report submitted to the President and the Congress before June 30, 1981.

Policymakers in both the executive and legislative branches, concerned about inflation and the U.S. economy, realize the positive contribution that agricultural exports make to the U.S. balance of trade. Since 1971 the surplus in the agricultural trade account has risen from \$1.9 billion to \$23.9 billion in 1980, and may reach \$29 billion for 1981. This surplus has offset much of the deficit in the nonagricultural account, which rose from \$3.9 billion in 1971 to \$48.7 billion in 1980 (17, p. 1; 15, p. 5). Other policymakers, including members of the National Governors Association, see increased exports leading to more income and jobs, a stronger dollar, and progress toward a balanced federal budget (5).

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1/ Underscored numbers in parentheses refer to literature cited at end of this article.

Since the surge in foreign demand for U.S. grains in 1973, approximately one-third of U.S. crops has been exported. American producers have become more dependent on foreign markets for maintaining farm prices and incomes. Many consumers, dissatisfied with rising costs of energy and food, question the wisdom of shipping so much food and feed abroad and have lobbied for controls in times of short U.S. supplies and rising food prices (for example, the price controls and soybean export suspension of 1973).

As the Reagan Administration and the 97th Congress draft legislation to replace the Food and Agriculture Act of 1977, the role of agricultural exports in the 1980's will be an important consideration. Enhancing the significance of this issue are projections that foreign production of food, feed, and fiber may grow at annual rates of 2.1 to 2.4 percent over the next few years while foreign demand is projected to grow at 2.5 to 2.7 percent. To meet this widening gap between foreign production and quantities demanded, U.S. agricultural exports would have to expand 5 to 8 percent annually (10, p. 14).

Growth in Agricultural Exports

Growing global population, rising incomes, economic growth, and inflation have spurred world agricultural exports from \$58 billion in 1971 to \$228 billion in 1979, an average increase exceeding 18.5 percent, compounded annually. Within that time the U.S. share of world agricultural exports ranged from 14 percent in 1971 to 18 percent in 1974 (7, p. 69). Leading markets for U.S. exports in 1980 were the European Community (EC), Japan, and Mexico with purchases of \$9.3, \$6.3, and \$2.5 billion, respectively (15, p. 8).

Exports of eight U.S. commodities in 1980 comprised \$29.0 billion of the \$41.3-billion total and were valued at over \$1 billion each. Ranked in order of sales value, they were: corn, wheat, soybeans, cotton, soybean meal, tobacco, rice, and sorghum (15, pp. 12-13). All of these commodities except sorghum have been leading sources of foreign exchange in recent years, and, with their principal international buyers, warrant closer consideration in an examination of export prospects for the near future.

Corn

The most important coarse grain traded on the world market, corn now constitutes more than 70 percent of the volume of international coarse grain sales. The United States increased its volume share of the world corn market from 50 percent in MY 1960 to 79 percent in MY 1979. 2/ Chief U.S. competitors in this market are Argentina, South Africa, and Thailand which held shares of only 7, 4, and 3 percent, respectively, in the 5-year period ending in 1979. Major world import markets during that time were the EC, USSR, Japan, and Asia (excluding Japan) with 38, 16, 15, and 10 percent, respectively (20, pp. 9, 11, 13).

In 1979 the USSR was the largest market for U.S. corn exports, taking 22 percent. The EC and Japan were close behind with 17 percent each. During 1980, Soviet purchases dropped to third with 8 percent due to the U.S.-USSR trade limitation, and Japan became the leading customer, procuring 19 percent of U.S. corn exports. The EC ranked second with 15 percent; Mexico, buying 8 percent,

2/ MY refers to the marketing year ending June 30.

became the fourth largest customer and emerged as a significant market for U.S. corn (15, pp. 9, 26; 17, p. 269).

Japan allows corn for livestock feed to enter duty free, which has stimulated the rapid expansion of its livestock industry. However, recent policies to subsidize the use of surplus rice as feed will provide some competition for imported corn. Japan has no price support for corn and produces little of this feed grain (20, p. 14).

Corn imports into the EC are subject to variable levies which prevent imported grain from selling at prices below those guaranteed to EC producers. EC corn prices are typically supported at levels above world market prices (20, p. 13). In spite of this price restriction, U.S. corn exports of 9.7 million metric tons (mmt) to the EC in 1980 equaled those to the USSR and Mexico combined (15, pp. 9, 26; 17, p. 269). Contributing to EC imports of U.S. corn have been levy reductions granted on ocean-shipped feed grain imports into Italy since mid 1967 (4, p. 9). Italy purchased 20 percent of U.S. corn going to the EC in 1980. In general, high EC support prices have slowed the growth in demand for corn, and encouraged the substitution of soybean meal combined with non-grain energy feeds, such as manioc, for corn (20, p. 14).

The sudden increase in USSR grain imports in the early seventies reflected not only disappointing Soviet harvests but also a commitment by the Soviet Government to increase domestic meat supplies. Subsequent purchases from the United States and other exporters indicate a continuing commitment by the Soviet Government to maintain and, if possible, expand livestock production. USSR corn imports in recent years reveal the potential for significantly larger purchases from the United States than in 1980 when imports were curtailed under the U.S.-USSR trade limitation. However, the realization of that economic potential depends on the political relationship between the U.S. and the Soviet Governments.

Mexico, emerging among leading U.S. corn customers in 1980, may be expected to continue sizeable corn purchases in the near future in spite of an announced goal of self-sufficiency in that grain by 1982 (6). Shipments of up to 2.25 mmt of corn to Mexico in 1981, as specified in a bilateral agreement announced in December, would not match the 4.9 mmt of U.S. corn exported to Mexico in 1980 (19; 15, p. 26). Mexico controls grain imports through licensing and requirements, and the Government supply agency subsidizes coarse grain sales to feed compounders to encourage livestock production in the private sector. Stimulated by Mexico's rapidly growing hog and poultry production, and financed through the expanding petroleum industry, Mexico's demand for U.S. corn should be tempered only by the progress of its own corn production (6).

After Japan, other Asian customers include China, South Korea, and Taiwan. Under the U.S.-PRC grain agreement signed last October, China is committed through calendar 1984 to purchases of at least half of the 1.7 mmt taken in 1980. South Korea and Taiwan, importing 2.3 and 2.0 mmt respectively in 1980, support corn producer prices above world market levels. The South Korean Government determines annual targets for feed grain imports. Taiwan importers currently pay a 3-percent (temporary) duty on corn, plus a harbor tax of 2 percent. Taiwan has bilateral trade agreements with the United States, Thailand, South Africa, and Uruguay for delivery of corn.

Both South Korea and Taiwan operate price stabilization funds which assure importers a constant cost for imported corn. If the base import price exceeds the world market price, importers pay the difference into the fund; if the market price exceeds the base price, the fund pays importers the difference (4, pp. 11-13). These

three Asian customers, China, South Korea, and Taiwan, may be characterized as relatively stable markets in the next few years.

Prospects for continued growth in U.S. corn exports seem certain. South Korea and the high-income countries of the EC and Japan should continue to increase per-capita total meat consumption, which translates into demand for feed grains. China and Mexico have the potential for increasing imports of U.S. corn. Continued Soviet purchases in the world market would also support export demand. U.S. shipments of 61.8 mmt of corn in 1979/80 have the potential to expand 30 percent to exceed 80 mmt by 1985/86. 3/

Wheat

The United States is the world's largest wheat exporter, averaging 41 percent of the world market from MY 1975 through MY 1979. Canada follows with 18 percent; Australia, 12 percent; and France, 11 percent. During this time the major importers in the world wheat market, the EC, USSR, Japan, and China, held 15, 10, 8, and 8 percent of the import market, respectively (20, pp. 21, 25).

In 1979 the Soviet Union was the largest customer for U.S. wheat, taking 16 percent of the 33 mmt exported. Japan was second with purchases of 10 percent. South Korea, China, and Brazil each took 5 percent, and the EC, 4 percent. Due to the U.S.-USSR trade limitation, the Soviets fell to fifth place in 1980 with 5 percent of the 36 mmt exported. China bought the most, 18 percent. Japan ranked second with 9 percent, Brazil third with 6 percent, and South Korea fourth with 5 percent. The EC trailed with 4 percent (15, pp. 6, 27-28; 17, p. 269).

Wheat imports into Japan are controlled by quotas set by the Government. All imports are sold to the Government at the port. The Government supports domestic producer prices at levels 3 to 5 times world market levels and sells wheat to consumers at subsidized levels below the producer price. Producers are paid to divert rice land into wheat production as part of a program to reduce rice surpluses which have persisted since 1969 (4, pp. 5-6, 34-35). Increases in Japan's demand for wheat, resulting primarily from population growth, may be met largely by rising domestic production. However, import levels should remain high.

Brazil's wheat imports are Government controlled through the Brazilian Wheat Board. The Government supports producer prices above world market levels, and since 1972 has subsidized wheat consumption with resale prices to flour mills at levels below producer and import prices. Although the Government encourages wheat production through subsidized loans on production inputs such as fertilizer and farm machinery, wheat production has not expanded rapidly because of disease problems from the wet, sub-tropical weather (4, pp. 6-7).

South Korean wheat prices are Government controlled. Domestic support prices, established annually, are usually above world market levels. Government purchased domestic wheat is sold to flour mills at prices below the producer support price, and the difference is absorbed by the Grains Management Fund. When world market prices exceed the established wheat import price, the Flour Price Stabilization Fund (FPSF) pays the difference for import purchases. When actual import prices are below the established import price, flour millers pay the difference into the fund. The FPSF was established in 1976 by the Korean Flour Mills Industry Association, the sole

3/ Export projections for grain, soybeans, and cotton provided by the World Analysis Branch of the International Economics Division, ERS, USDA.

importer of wheat in South Korea, and the South Korean Government to stabilize prices of imported wheat (4, p. 8). Wheat consumption has sometimes been subsidized by the Government through ceilings on flour prices.

U.S. wheat exports to the EC may decline in the near future. The EC share of world wheat imports decreased from 20 percent in MY 1969 to 12 percent in 1979. Most of the wheat imports by EC countries come from within the Community. Imports from outside the EC are primarily hard wheats which are not produced in sufficient quantities within the Community (20, p. 25).

As with corn, EC soft and durum wheat prices are supported well above world market levels by the levy system (4, p. 34). As a result of these incentives EC wheat production is growing, especially in France which is expanding exports and increasing feed use of wheat. Over half of France's recent wheat exports has been soft wheat (18). The EC recently approved increased export subsidies for shipments of wheat to China. This will facilitate French exports to that country in accordance with an agreement finalized last September which authorizes sales of 500,000 to 700,000 tons annually, subject to sufficient levels of EC subsidies (1).

The Soviets can usually meet their food-use needs from domestic production if they get a good quality crop. However, in the event of a short or low quality crop, they will import high quality hard wheat for food use and feed low quality domestic wheat to livestock. If USSR soft wheat production falls short of feed needs, the Soviets can usually meet this feed demand with imported corn which provides more nutrition at a lower cost than wheat (20, pp. 25-26).

In last October's bilateral agreement with the United States, China agreed to purchase at least 4.8 mmt of wheat annually through 1984 and could buy more if it wished. Rising population and incomes in developing countries, especially North Africa and the Middle East, contribute to the growing demand for wheat. Continued Soviet purchases in the world market would also support export demand. The United States could hold its share of a growing market in the 1980's, maintaining total wheat exports of 46 mmt by 1985/86.

Soybeans and Soymeal

World trade in soybeans more than quadrupled over the past 20 years. The U.S. share of world exports, averaging 90 percent from calendar 1961 through 1971, dropped to 80 percent from 1975 through 1978 due to increased exports from Argentina and Brazil (20, p. 3). In 1979 Argentina ranked second to the United States with 11 percent of the world export market; Brazil was third with 3 percent (12, p. 232). The U.S. share of world soymeal exports has declined from a high of 73 percent in 1967 to 41 percent in 1979. Brazil held second place in 1979 with 35 percent of the soymeal export market, and Argentina had 2 percent (20, p. 4; 12, p. 202).

During the past 2 years the largest customers for U.S. soybeans have been the EC, Japan, and Spain, in that order. In 1980, the EC took 41 percent of U.S. soybean exports; Japan and Spain, 19 and 9 percent, respectively (15, pp. 9 30; 17, p. 269). The leading soymeal customer for the last 2 years has been the EC, purchasing over 50 percent of U.S. soymeal exports in 1980, while other customers each took 5 percent or less (15, p. 29).

Although the EC and Japan support their soybean producers with prices generally above world market prices, soybean and soymeal imports enter quota-free and tariff levels have been bound at zero by GATT (General Agreement on Tariffs and Trade). Japan's soybean production is largely for food, and producers are paid to divert rice land to soybean production. Both markets, however, levy tariffs on soyoil imports,

which provides an incentive for importing and processing soybeans rather than importing soyoil (4, p. 17; 20, pp. 7-8). U.S. soybean and soymeal exports to these markets may continue to grow, assuming continued growth in demand for livestock products and duty-free treatment of U.S. exports. Rising incomes and increasing demand for meat and other animal products world-wide help assure an expanding market for U.S. soybean exports which are projected to advance 11 percent from 31.3 mmt (bean equivalent) in 1979/80 to 35 mmt in 1985/86.

Cotton

The United States and the USSR lead the rest of the world in cotton exports. In 1960 the U.S. and USSR shares of the total export market were 40 and 10 percent, respectively. 4/ In 1970 the U.S. share had fallen to 22 percent, and the Soviet share had expanded to 14 percent. Other exporters in 1960 and 1970 commanded individual shares of less than 10 percent. For the 5-year period ending in 1979, the U.S. share of 28 percent led the Soviets' 21-percent share while other exporters continued to hold shares of less than 10 percent each (20, p. 29).

The EC and Japan have been the major cotton importers, purchasing 34 and 20 percent, respectively, of total world imports in 1960 and 23 and 20 percent, respectively, in 1970. Other importers took less than 10 percent each in 1960 through 1977. China emerged among leading cotton importers in 1978 by taking 11 percent, and in 1979 equalled Japan's 16-percent share. The EC followed both with a 15-percent share in 1979. Other importers in 1978 and 1979 continued to hold individual shares below 10 percent (20, p. 31).

Japan, South Korea, and China were the major U.S. customers in 1979 taking 20, 19, and 16 percent of U.S. cotton exports of 1.5 mmt. In 1980 China took the lead with purchases of 25 percent, while Japan and Korea each took 17 percent of the 1.8 mmt of U.S. exports (15, p. 22). China's expansion of domestic cotton production may stop or even reverse its growth in cotton imports in the near future. However, China's cotton imports are expected to remain large. South Korea should continue to increase its imports, although at a slower rate than in the 1970's, to meet government-planned growth in cotton textile exports. Japanese raw cotton imports may remain constant while cotton textile imports increase due to lower production costs in neighboring countries.

U.S. cotton exports are not expected to expand significantly because foreign production and consumption are projected to grow at similar rates. However, the increasing prices for petroleum-based synthetics should make cotton more competitive and with rising incomes should boost foreign demand to equal the 2-percent supply growth likely in the early eighties. The United States is likely to continue as the world's largest cotton exporter with shipments averaging nearly 1.6 mmt through the mid eighties, below the 1980 level but above the average for the last two decades (10, p. 14).

Tobacco

The United States is the leading exporter of unmanufactured tobacco--primarily flue-cured and burley. (Manufactured products such as cigarettes, cigars, and smoking tobacco are not included here.) World exports have doubled since the early sixties, reaching over 3 billion pounds in 1979. The U.S. share of total tobacco

4/ World market shares for cotton calculated from data aggregated by individual country crop years.

exports has gradually declined from an average of 35 percent in 1955 through 1959 to 19 percent in 1979 (16, p. 30). Major U.S. competitors include Zimbabwe (Rhodesia) and Brazil, which recently increased their shares of the flue-cured export market, and Italy and Mexico in the burley market (16, p. 31).

Important customers for U.S. exports of unmanufactured tobacco have been the EC and Japan, with purchases of 38 and 17 percent, respectively, of 1979 U.S. exports, and 38 and 14 percent of 1980 U.S. exports. Other customers took less than 8 percent each year (15, p. 31). Total EC tobacco imports in 1979 declined by 8 percent from 1978, while EC imports of U.S. tobacco dropped 32 percent. Japan's total tobacco imports decreased 12 percent in 1979, but those of U.S. origin declined only 5 percent (16, p. 33).

Last November, Japan agreed to: (a) lower tariffs on imported cigarettes, cigars, and pipe tobacco, (b) increase domestic retailers' profit margins on the sales of foreign tobacco, (c) increase the number of retailers selling imported tobacco products in 1981, and (d) permit U.S. companies to advertise in Japanese (1). Although the U.S. tobacco industry estimated that these actions may allow the U.S. share of the Japanese manufactured tobacco market to increase from 1 percent to about 10 percent, such an increase would come through exports of manufactured tobacco products, rather than unmanufactured tobacco.

U.S. exports of all unmanufactured tobacco in calendar 1979 were the lowest since 1971, falling more sharply than the 2-percent drop in total world tobacco exports in 1979 (16, p. 30). Price and tax increases, combined with rising anti-smoking activities, held down cigarette sales in developed countries. These factors and lower prices for competitor's tobacco should hold U.S. exports near 1979 levels through the 1980's (8, p. 6).

Rice

No single country dominates world rice exports or imports, primarily because consumers in various nations have different preferences for taste, texture, and cooking characteristics of rice. For example, people in many Asian countries prefer short-grain rice, while Europeans favor long-grain. During MY 1975 to 1979 the United States and Thailand were the world's largest exporters, averaging 22 and 21 percent, respectively, of the export market. China followed with 12 percent (20, pp. 34-35).

Among U.S. competitors, Thailand is not likely to significantly increase its share of the world market so long as it continues to tax rice exports and assign export quotas (4, p. 21; 20, pp. 34-35). However, major production increases and a serious trade deficit may change the situation. Japan is seeking domestic and export outlets for its surplus stocks of rice, acquired through years of government price supports and ineffective production control programs. Japan agreed to restrain its subsidized exports of surplus rice to avoid displacing traditional commercial rice trade in the world market.

From MY 1975 to 1979 the major rice importers were Indonesia with 19 percent of all world imports, followed by the EC, 9 percent, and Nigeria, 4 percent. Asia accounted for 42 percent of all rice imported during that period, and Africa absorbed 15 percent. Rising incomes in Africa should continue to stimulate growth in that share of the world market (20, p. 38).

In 1979 Indonesia led U.S. rice recipients with 13 percent of the 2.3 mmt exported. Iran followed with 12 percent, and Iraq ranked third with 9 percent.

During 1980, South Korea received the most U.S. rice, 27 percent of the 3.1 mmt exported. Iraq was second with 9 percent, and Saudi Arabia took 7 percent (15, p. 27).

The South Korean Government controls rice imports and supports producer prices well above consumer and world market price levels. Farmers can sell rice to the Government, to cooperatives, or on the free market (4, pp. 15, 36). The Government has frequently required over the past decade that rice be extended with barley or pearled wheat in public eating places, and encourages this practice in home consumption. The Government also selectively controls the industrial use of rice and other food grains.

Indonesian rice imports are also Government controlled. Producers receive fertilizer and pesticide subsidies as well as access to low-cost credit for production inputs. However, rice prices are maintained at levels below world market prices for the benefit of consumers at the expense of producers (4, pp. 15, 36).

U.S. rice shipped under PL 480 programs constituted 96 percent of concessional U.S. Government-financed rice exports for the past 25 years. Over the past decade, concessional exports have declined from 71 percent of total U.S. rice exports in fiscal year (FY) 1972 to 18 percent in FY 1980 (13, p. 93; 14, pp. 29-30; 15, p. 78). Given the expected increase in foreign demand for food in the 1980's, U.S. commercial and concessional rice exports could rise from 2.7 mmt in 1979/80 to 3.6 mmt in 1985/86.

Conclusions

Among U.S. commodity exports, corn has the potential for the largest absolute growth, an additional 19 mmt from 1979/80 to 1985/86, destined for those countries with increasing demand for livestock products. Soybean exports could be expected to accompany feed grains to markets like the EC and Japan, both as a source of protein for livestock feed and also as a source of vegetable oil for human consumption. Strengthening foreign demand for food grains in the 1980's suggests a possible 23-percent expansion in U.S. wheat exports and potential gains in rice exports of 33 percent from 1979/80 to 1985/86. By the mid eighties, the United States could be exporting over 175 mmt of grains and oilseeds, compared with 80 mmt shipped in the early seventies. Cotton exports are not expected to grow as rapidly as grain and oilseed exports; foreign production is projected to keep pace with foreign demand. U.S. tobacco exports will remain fairly constant due to increasing U.S. prices, expanding supplies from foreign competitors, and sluggish demand abroad (10, p. 14).

If foreign demand for food and feed expands faster than foreign production as is projected, it will provide opportunities for the United States to continue its record export volumes and values of grains and oilseeds. As policymakers mold the U.S. response to this growing gap between world supplies and quantities demanded, they will be considering the consequences of various alternative actions. Consideration of policies that would encourage U.S. producers to meet these projected potential export levels could include the following costs and benefits.

[illegible]

1/ Soybeans and soybean meal shown in soybean equivalent.

2/ Farm sales weight.

Sources: Tobacco; ERS, Tobacco Situation TS-174, Dec. 1980, p. 24. ASCS, "CCC Estimates," Jan. 5, 1981, p. 90. Other; World Analysis Branch, International Economics Division, ESS, USDA.

Costs

- Soil and water depletion. Rising commodity prices encourage U.S. producers to cultivate marginal lands that are often more susceptible to erosion than their best land. Studies of cropland in the Corn Belt indicate that if topsoil erosion is allowed to continue at the 1977 rate, potential corn and soybean yields would probably be reduced by 15 to 30 percent on some soils by the year 2030. Expanding production often is accompanied by increased irrigation. Underground water supplies are being depleted faster than they are replenished in several major crop producing regions, as evidenced by declining levels in the water tables (9, pp. 28, 34-35).
- Price variability. Producing for world market prices subjects farmers to supply-induced price variations that may exceed those from domestic forces. U.S. farmers who financed land and equipment on price expectations arising from the export spurt in 1973 have experienced the realities of declining prices when world supplies recover. Fluctuations in foreign demand for U.S. agricultural products are expected to be even greater in the eighties than previously (10, p. 15). Wide variations in U.S. commodity prices tend to have a ratchet effect in raising consumer prices. Most retail price and cost increases associated with rising commodity prices are not equally flexible downward when commodity prices fall.
- Increased consumer prices. Allowing foreign and U.S. consumers to compete for U.S. food supplies will increase the real cost of food in the United States as world production falls behind growing demand. Exporting large quantities of food and feed could mean that U.S. consumers will pay more for these items than if such exports were curbed or controlled.
- Added inflation. Exports reduce the supply of goods available for domestic use and increase money held by Americans, thus creating inflationary pressures. This can be offset by imports, which increase the supply of goods

and decrease money held by Americans, creating deflationary pressures. To the extent that foreign trade policies act to stimulate export demand and reduce imports, they are inflationary (11, pp. 13, 38).

Benefits

- Balance of payments. The United States apparently enjoys a comparative advantage in producing and delivering an increasing portion of the world's agricultural trade. These agricultural exports created a surplus of \$23.9 billion in the 1980 agricultural trade balance, significantly reducing a \$48.7-billion deficit in the non-agricultural sector of the trade accounts, due largely to escalating petroleum costs.
- Non-agricultural imports. Foreign exchange earned from sales of agricultural products facilitates the purchase of other non-agricultural products from trading partners such as West Germany and Japan. To limit U.S. agricultural exports to these and other major trading partners could threaten the quantity and price of products imported from them.
- Increased interdependency. Enlarging U.S. trade with other countries should improve international cooperation and political relationships, especially when that trade involves food. For example, the expansion of U.S.-China relations last fall involved agreements on civil aviation flights, consular affairs, shipping ports, and textile trade as well as sales of U.S. wheat and corn.
- Farm income support. Allowing U.S. producers to sell to a world market characterized by demand outpacing supply means greater farm receipts, with more coming from the market place and with less need for U.S. Government transfers payments. This should increase Government revenues through income taxes on farm profits while decreasing the cost of price-support programs.
- General economic support. Expanding agricultural exports provides jobs and income to those sectors of society engaged in processing, transporting, and marketing the commodities, as well as other supporting sectors. In 1981 the food and fiber system will generate nearly \$580 billion in gross national product and require the services of 22 percent of the labor force--over 23 million people. Agricultural exports, expected to exceed \$47 billion in 1981, will generate \$95 billion in economic activity and require over 1.2 million person years of labor (3).

References

- (1) Davison, Cecil W. "World Food and Trade Policy Developments," World Agricultural Situation, WAS-24, December 1980, pp. 36-38.
- (2) General Services Administration, National Archives and Records Service. "Trade Agreements Act of 1979, July 26, 1979," U.S. Presidential Documents: Jimmy Carter 1977, Vol. 15, No. 30, pp. 1311-14.
- (3) Groenewegen, John R. and Kenneth C. Clayton. "Agriculture's Role in the Economy of the United States." ESS Staff Report No. AGESS810407. U.S. Department of Agriculture, Economics and Statistics Service, April 1981, p. 21.
- (4) Jabara, Cathy L. Trade Restrictions in International Grain and Oilseed Markets. FAER-162. U.S. Department of Agriculture, Economics and Statistics Service, January 1981.

- (5) Kinney, Joseph A. "U.S. Governors Focus on Farm Export Challenges," Foreign Agriculture, Vol. XIX, No. 1, January 1981, p. 22.
- (6) Link, John E. "Mexico Aims Self-Sufficiency in Basic Foods, Reduced Imports." Foreign Agriculture, Vol. XIX, No. 1, January 1981, pp. 9-11.
- (7) Mackie, Arthur B. and Michael Allen. "World Demand for U.S. Agricultural Products Increases U.S. Market Share." Foreign Agricultural Trade of the United States, November/December 1980, pp. 68-78.
- (8) Miller, Robert H. "Tobacco Use: Trends and Projections." Unpublished paper presented at 36th Annual Convention, Bright Belt Tobacco Warehouse Association, Inc., Myrtle Beach, South Carolina, June 16-18, 1980.
- (9) National Agricultural Lands Study. Soil Degradation: Effects on Agricultural Productivity, Interim Report No. 4, Washington, D.C., November 1980.
- (10) O'Brien, Patrick M. "Global Prospects for Agriculture." Agricultural-Food Policy Review. AFPR-4. U.S. Department of Agriculture, Economics and Statistics Service, April 1981.
- (11) Prentice, Paul T. and Lyle P. Schertz. Inflation: A Food and Agricultural Perspective. AER-463. U.S. Department of Agriculture, Economics and Statistics Service, February 1981.
- (12) United Nations Food and Agriculture Organization, FAO Trade Yearbook 1979, Rome, Italy 1980.
- (13) U.S. Department of Agriculture, Economics, Statistics, and Cooperatives Service. Foreign Agricultural Trade of the United States, June 1979.
- (14) _____, Economics and Statistics Service. Foreign Agricultural Trade of the United States, November/December 1980.
- (15) _____, Economics and Statistics Service. Foreign Agricultural Trade of the United States, January/February 1981.
- (16) _____, Economics, Statistics, and Cooperatives Service. Tobacco Situation, September 1980.
- (17) _____, Economics and Statistics Service. U.S. Foreign Agricultural Trade Statistical Report, Calendar Year 1979, October 1980.
- (18) _____, Foreign Agricultural Service. Foreign Agriculture, September 1980, p. 37.
- (19) _____, "U.S.-Mexico Sign Supply Agreement For Agricultural Products in 1981." Press Release No. 3088-80, Washington, D.C., December 3, 1980.
- (20) Webb, Alan J. World Trade in Major U.S. Crops: A Market Share Analysis. ESS-7. U.S. Department of Agriculture, Economics and Statistics Service, April 1981.

Policy Through Legislation

Agricultural Act of 1980

One of the last legislative actions the 96th Congress completed was the Agricultural Act of 1980. It was signed into law, Public Law 96-494, on December 3, 1980. Titles II and III have major effects on the wheat and feed grain programs. These titles included the following provisions:

- o Raised the minimum loan level for 1981 crop wheat, corn, and soybeans to the levels announced by President Carter on July 28, 1980 for the commodities listed:

Wheat--\$3.00 per bushel

Corn--\$2.25 per bushel

Soybeans--\$5.02 per bushel

(Loan levels for sorghum, barley, oats, and rye were also increased to \$2.14, \$1.83, \$1.16, and \$1.91 per bushel, respectively, on July 28. For 1981 crops, the Secretary has discretion to set their value in a fair relationship to the corn loan rate.)

- o A special loan rate was established for 1980 and 1981 crop commodities entering the farmer-owned reserve, effective October 1, 1980. The minimum level was set at \$3.30 per bushel for wheat and \$2.40 for corn. Other feed grain loan rates for the farmer-owned reserve were left to the Secretary's discretion to be set at a fair value to the corn loan rate. For 1980 crops they were: \$1.23 per bushel for oats, \$2.28 for sorghum, and \$1.95 for barley. Producers who had placed grain into the reserve prior to October 1, could elect to receive the higher authorized loans.
- o The statutory formula of 140 to 160 percent of loan level for release and the minimum 175 percent of loan level for call was removed as the basis for determining wheat release and call levels. The Act leaves wheat call and release levels at the Secretary's discretion. The feed grain reserve program prices have always been left to the discretion of the Secretary. In addition, the special farmer-owned reserve loan rate is not to be used in determining release and call levels.
- o The waiver of interest charges on all farmer-owned reserve loans for 1980 and 1981 wheat and feed grain crops was mandated by the Act.
- o The minimum CCC sale price of grain stocks was changed from 150 percent of the current loan level to 105 percent of the appropriate call level.
- o Commodity export restriction protection in the form of a set-aside was authorized for the 1981 crops of wheat, feed grains, upland cotton, and/or rice if the Secretary determines it is in the public interest. In addition, in the event of any export restrictions for national security or foreign policy reasons which will result in the threat of surplus supplies, the Secretary is authorized to establish commodity reserves for the purpose of emergency food assistance and gasohol feedstocks.
- o The latest permissible date for announcing a feed grain set-aside was advanced from November 15 to November 1.

- o The Secretary was given authority to initiate an alcohol processor grain reserve.
- o The President was required to establish a wheat reserve of up to 4 million metric tons for emergency humanitarian food needs in developing countries. The reserve may be replenished by CCC stock transfers or by Government purchases.

On January 19, the Secretary designated 4 million tons of CCC wheat for this reserve. This wheat is to be used only when other domestic supplies are not available for P.L. 480 programs. (Note: 300,000 tons of the reserve may be used under Title II of P.L. 480 without regard to domestic supply when urgent humanitarian relief is needed in developing countries suffering a major disaster.)

Farm credit Enhanced

On December 24, S. 1465 was signed as Public Law 96-592, the Farm Credit Act Amendments of 1980.

The new Act:

- o Lowers the percentage of voting members of rural utility and service cooperatives and some farm supply cooperatives who must be farmers in order for these cooperatives to be eligible for loans from a Bank for Cooperatives;
- o Authorizes the Banks for Cooperatives to provide export credit and related services to cooperatives;
- o Provides special authority to aid young, beginning, and small farmers;
- o Authorizes the provision of loan funds from Federal Intermediate Credit Banks to rural commercial banks; and
- o Enables Federal Land Banks to extend to commercial fishermen the same range of services which are currently available to farmers and ranchers.

NCA Requirement

Congress attached an amendment to the fiscal 1981 USDA Appropriations Act to suspend the normal crop acreage (NCA) requirement for 1981. This action will allow farmers to participate in commodity programs without restraint, since no set-asides or diversions have been announced. However, Congress did add a provision that any additional land brought into production in 1981 would not be included in any future NCA computation. USDA has urged restraint on bringing erosion prone land into production.

Grain Weighing Bill

The "Ashley Bill", Public Law 96-437, signed October 13, 1980, amended the U.S. Grain Standards Act. Under provisions of this Act, only grain being exported will have to be officially weighed when entering export elevators at port locations. Previously all grain entering such facilities had to be weighed. After October 30, elevator operators could choose either to continue official weighing -- Class X; receive supervision of weighing--Class Y; or receive no weighing services at all for exempted grain. Intracompany shipment by any transport means, intercompany shipments by any transport means except by barge and any grain shipped out of an export elevator to domestic locations are specifically exempted from weighing.

Crop Insurance

The Federal Crop Insurance Act of 1980, Public Law 96-365, signed into law on September 26, 1980, will make an "all-risk" type of crop insurance available on virtually all major crops in all major crop producing areas in the country. The program is to be expanded by 250 additional counties per year for five years from its present base. This program is to replace the disaster payment programs which protected only a few selected commodities.

Some of the major provisions include: 1) provision of a subsidy of 30 percent toward each participating producer's premium, for coverage not to exceed 65 percent of normal crop yield; 2) providing producers protection against yield losses for 50, 65, or 75 percent of the normal average yield for the farm on the commodity insured; 3) offering for reimbursement option of up to 90 percent of the projected market price for the commodity in the new crop year; and 4) giving producers the choice to delete hail and fire coverage thereby reducing their premium.

Subterminal Facilities

The Agricultural Subterminal Facilities Act of 1980, Public Law 96-358, was passed in September. This legislation allows up to \$3.3 million in Government loans for each fiscal year from 1981 to 1983 for the construction and improvement of subterminal storage and transportation facilities for bulk agricultural commodities.

Nutrition Legislation

The Omnibus Reconciliation Act of 1980, which passed in December, affected many of USDA's nutrition programs. A maximum gross income limit of \$15,490 for a family of four was set for participants in the special supplemental food program for women, infants, and children (WIC). This income level is 195 percent of the official poverty line, plus a current standard deduction of \$80.00 per month. The lower bound for the program is \$7,450 per year (the poverty line) for a family of four. Previously, the states set up their own income limit. State limits may still be used as long as they do not exceed \$15,490 or fall below \$7,450.

Other changes mandated by the 1980 law should save \$300 million in fiscal 1981 USDA outlays. Major changes include: 1) reducing by 2 cents per meal commodity assistance for school lunches in fiscal year 1981, savings --\$70.8 million; 2) prohibiting permanently the Labor Department's Job Corps Centers from participating in the school lunch or breakfast programs, savings--\$15.2 million in fiscal 1981; 3) eliminating semi-annual cost of living adjustments in federal reimbursement rates for breakfasts and lunches served in schools and meals served in child care centers in fiscal 1981, savings--\$70.5 million; 4) reducing federal reimbursement for all school lunches by 2.5 cents in fiscal 1981, except school lunches served in school districts where 60 percent or more of the children are from low income families and received free or reduced lunches during the 1978-79 year, savings--\$56.9 million; 5) reducing permanently the reimbursement for a half pint of milk from 8.5 to 5 cents, savings--\$57.4 million in fiscal 1981; 6) reducing USDA's reimbursement for reduced price lunches to 20 cents less than the reimbursement for free lunches (previously 10 cents), savings--\$28.4 million in fiscal 1981; and 7) lowering permanently the reimbursement rate for supplemental foods served in child care centers by 3 cents per meal, savings--\$4.1 million in fiscal 1981.

Coffee Agreement Implemented.

On December 24, H.R. 3637 became Public Law 96-599, implementing the new International Coffee Agreement (ICA) reached by producer and consumer members of the International Coffee Organization October 3. The new ICA will support world coffee

prices through the use of export quotas for the year which began October 1, 1980. At world market prices below \$1.55 per pound, the quota will be adjusted according to specific price ranges. At prices beyond \$1.55 per pound, the quota will be suspended.

Legislative Activity Not Completed

Since a new Congress was formed in January, all uncompleted work from the 96th Congress must be reintroduced. A new "farm bill" will be the major agricultural emphasis for the first few months of the 97th Congress.

Policy Through Administration

No Deficiency Payments

There will be no deficiency payments on 1980 crops of wheat, barley, upland cotton, and rice. National weighted average market prices for these crops during the specified months of the 1980 marketing year were well above the target prices of \$3.63 per bushel for wheat, \$2.55 for barley, \$9.49 per hundredweight for rice, and 58.4 cents per pound for upland cotton. Although a decision on deficiency payments was not announced on other 1980 crop feed grains as of the publication date of PRN, average market prices in 1980 were above the respective target prices.

1981 Wheat Program

On August 15, the Secretary announced there would not be a set-aside for 1981 crop wheat for producers to be eligible for the farmer-owned reserve, commodity loans and target price protection. The only eligibility requirement was for farmers to plant within their normal crop acreage (NCA). However, an amendment to the fiscal 1981 USDA Appropriations Act suspended the NCA requirement for all 1981 crops. The target price for 1981 had not been announced as of publication time, but the Secretary did state that it would not be less than \$3.81 per bushel.

The 1980 national program acreage for wheat was increased on December 2 from 70 million to 75 million acres. This is the acreage needed to be planted to meet expected demand and assure an adequate carryover. The allocation factor was 100 percent. The preliminary 1981 national program acreage is 71 million acres. Decisions on a possible paid diversion program and a haying and grazing program will be made in the near future.

1981 Feed Grain Program

On November 14, USDA announced there would be no set-aside requirement for program eligibility on 1981 feed grain crops. Although a NCA requirement was originally announced, an amendment to 1981 USDA appropriations rescinded the requirement. Target price levels had not been announced at publication time, but they will not be less than the 1980 levels. National program acreages for 1981 were set at 90.1 million for corn, 15.4 million for sorghum, and 7.9 million acres for barley. (On December 2, the 1980 national program acreage for barley was raised from 7.9 to 8.3 million acres.)

Additional Changes to the Farmer-Owned Reserve

USDA has continued to make modifications to the farmer-owned reserve program. On September 8 it was announced that all producers with grain in the reserve would have 90 days to settle their account after their particular reserve had been called. Previously, farmers who had entered grain into the reserve before January 7, 1980, and had not converted to a new contract had only 30 days to settle their called reserve account.

On October 23, another change was made to the reserve for grain entered before January 7, 1980 (known as reserve I). This change put reserve I grain into the same call determination procedure as the rest of the farmer-owned reserve: the five-day moving average price would have to be at or above the commodity's call level for five consecutive market days, before the particular reserve would be called. Previously grain in reserve I could be called if the commodity's five-day moving average price was at or above the commodity's call level.

Farmers who must settle their reserve corn loans were given 30 additional days after the settlement date to act, on February 5, 1981 due to low water levels causing transportation problems. The settlement date for reserve I was February 9 and for reserve II and III, April 15.

Upland Cotton Program

On October 31, 1980, USDA announced a 1981 crop basic grade upland cotton loan rate of 52.46 cents per pound (basic grade--strict low middling 1-1/16 inch with a micronaire of 3.5 through 4.9, net weight). The 1980 crop loan rate was 48.00 cents per pound. On December 15, USDA provided further information on the 1981 upland cotton program. There will be no set-aside, diversion or normal crop acreage requirements, largely because of increased demand and a reduced 1980 crop caused by poor growing conditions. The 1981 national program acreage has been set at 14.0 million acres. The target price level had not been announced at publication time.

President Carter established a special import quota on upland cotton on November 24. This action was taken after upland cotton prices exceeded 130 percent of the average designated spot market price for such cotton for the preceeding 36 months, as required by the Food and Agriculture Act of 1977. The average spot market price for September 1980 was 87.52 cents per pound, 139 percent of the preceeding 36 month average. The special quota would allow approximately 500,000 bales (238,633,920 pounds) of upland cotton into the country within 90 days of announcement of this decision in the Federal Register. The normal cotton quota totals 20,518,835 pounds.

On February 4, 1981, CCC announced that borrowers of non-recourse upland cotton loans scheduled to mature February 28, could extend them through October 31, 1981. Producers had requested the extension and under law it had to be granted since the average price of basic grade upland cotton in January was less than 130 percent of the average spot market price for the preceeding 36 months. During January, the spot market price was 127 percent of the 36 month average.

ELS Cotton Program

USDA announced on October 14 a national marketing quota of 195,000 bales and a national acreage allotment of 150,241 acres for the 1981 crop of extra long staple (ELS) cotton. ELS producers approved the marketing quota in December with 85.8 percent voting in favor. Growers who exceed their allotments are not eligible for loans or any payments and are subject to penalties on the excess acreages in the amount of 50 percent of the parity price for ELS cotton as of June 15, or 50 percent of the loan rate, whichever is higher.

On October 31, the 1981 ELS cotton loan rate was set at 99.0 cents per pound -- 65.5 cents above the 1980 rate. This is 192 percent of the adjusted 1981 upland cotton loan rate and, therefore, within the 185 to 235 percent range mandated by law. There will be no support payments on 1981 crop ELS cotton since the statutory minimum support rate--55 percent of parity--is provided.

Seed Cotton Program

There will be a 1981 seed cotton loan program similar to the one available in 1980. It will be a recourse loan program, meaning the borrowers must repay the full dollar amount. There is no crop forfeiture option as with non-recourse loan programs.

Peanut Program

Peanut producers approved marketing quotas for their 1981 through 1983 crops in a December referendum. Over 89 percent voted in favor. To sell peanuts, growers will have to have marketing cards issued by ASCS. On December 2, USDA announced the 1981 crop peanut poundage quota of 1,440,000 short tons--the minimum required by law--and a national acreage allotment of 1,739,000 acres. The 1980 allotment was 1,614,000 acres--the statutory minimum.

The 1981 crop national average support level was announced on February 13. For quota peanuts it will be \$455 per short ton and \$250 per short ton for additional peanuts. Both levels are unchanged from 1980. The quota support price is expected to cover 95 percent of the cost of producing peanuts. Additional peanuts are those that are grown in excess of the quota.

Tobacco Program

The 1980 tobacco loan program was announced on July 30. The 1980 levels are 9.4 percent above those in 1979.

<u>Kind</u>	<u>1980 Crop</u>	<u>1979 Crop</u>
	(cents per pound)	
Burley, Type 31	145.9	133.3
Virginia fire cured, Type 21	98.9	90.4
Kentucky-Tennessee firecured, Types 22-23	98.9	90.4
Dark air-cured, Types 35-36	88.0	80.4
Virginia sun-cured, Type 37	88.0	80.4
Cigar binder, Types 51-52	101.0	92.3
Cigar filler and binder, Types 42-44, 53-55	72.9	66.6
Puerto Rican, Type 46	75.7	69.2

In 1981, the flue-cured tobacco national marketing quota will be reduced 82 million pounds from the 1980 crop quota to 1.013 billion pounds as a result of excess reserve supplies. The tobacco program allows farmers who produce less than their quota of tobacco in one year (undermarketing) to produce more than their quota (overmarketing) the following year. In 1980 undermarketings are estimated to have exceeded overmarketings by 80 million pounds. Therefore, the effective quota for 1981 will be about 1.093 billion pounds--94 million pounds below the 1980 effective quota. The 1981 national acreage allotment is 546,386 acres, 7.5 percent below the 1980 allotment.

The national marketing quota for 1981 burley tobacco is 661 million pounds--7.5 percent above the 1980 quota. Since overmarketings are expected to exceed undermarketings the effective farm quotas are expected to be 860 million pounds--12 percent greater than in 1981. The 1981 acreage allotment for Kentucky-Tennessee fire-cured tobacco has been reduced 5 percent from 1980 levels. Other 1981 tobacco acreage allotments are:

<u>Kind</u>	<u>1980</u>	<u>1981</u>
Virginia fire-cured (type 21)	9,729	9,576
Virginia sun-cured (type 37)	1,377	1,335
Kentucky-Tennessee fire-cured (types 22-24)	27,910	26,345
Kentucky-Tennessee dark air-cured (types 35-36)	13,363	13,371
Cigar filler and binder (types 42-44 and 53-55)	19,291	19,048
Cigar binder (types 51-52)	3,679	3,675

Voluntary tobacco inspection fees were increased in February 1980. The regular fee was increased to \$17.80 per hour from \$15.50. Overtime hourly fees were increased from \$18.50 to \$21.30 and Sunday and holiday fees from \$23.20 to \$26.70. Only tobacco sold at auction or a designated market has mandatory free inspection service.

Dairy Program

The support price for milk was adjusted on October 1 from \$12.07 per hundredweight with a milkfat content of 3.5 percent to \$12.80 per hundredweight. The support price for milk with a milkfat content of 3.67 percent was adjusted from \$12.36 to \$13.10 per hundredweight. These levels are at 80 percent of the October 1 parity price. The Food and Agriculture Act of 1977 mandated semi-annual adjustments with supports at a level between 80 and 90 percent of parity. A decision on the mid-year adjustment is slated for April 1.

Livestock Programs

USDA increased some of its meat and poultry inspection fees on October 5. Although inspection costs during routine federal working hours--not to exceed 40 hours per week--are covered by USDA, overtime mandatory inspection fees must be paid by the user. The overtime or holiday hourly rate was increased from \$15.44 per hour to \$16.76. The base rate of \$13.48 per hour will not change--this is paid for voluntary inspection service. The laboratory service fee was increased from \$24.04 to \$26.24 per hour.

On January 25, USDA fees for voluntary grading of egg products, eggs, poultry and rabbits were increased because of higher costs associated with the service. Plants with resident graders will be charged \$11.68 per hour per grader--up from \$8.34. Those without resident graders will be charged \$16.52 per hour up from \$14.22. Mandatory inspection fees were raised from \$12.00 to \$13.08 per hour and holiday fees were raised from \$12.00 to \$16.28.

As of December 31, 1980, no indemnity payment will be made for the destruction of diseased poultry or livestock when the infection resulted from the knowing use of an illegal product or a potential disease carrying agent.

Emergency Feed Aid

During fiscal year 1980, USDA paid out \$23.4 million in Emergency Food Aid Payments, which helped livestock producers purchase 1.25 billion pounds of feed. During fiscal year 1979, \$63.6 million were approved for payment. The maximum authorized amount of aid was increased on August 11 from 2 cents to 3 cents per pound of hay or other feed grain equivalent for the current drought period. During the first quarter of fiscal 1981, \$66.1 million was paid to livestock producers--\$36.4 million in December

alone. This figure was nearly triple the total amount paid in fiscal year 1980 and is due to widespread drought conditions. The funds helped purchase 2.5 billion pounds of feed for livestock.

Food Assistance

Under a regulation to be implemented this year, all able-bodied food stamp recipients will have to actively search for jobs or be dropped from the program for two months. Those who register for work must also be called into their state employment service for an interview and job classification. The job seekers would have to contact between 8 and 24 potential employers within eight weeks and report for two follow-up interviews with employment counselors. USDA would more than double the amount of funding to the U.S. Department of Labor to implement the rule. Exemptions from the requirement are primarily the elderly and disabled, those already working, those responsible for care of dependents, and those already registered for work under unemployment insurance and work incentive programs.

Program implementation will begin in 1981 on a rule which would allow states to require more proof of information on food stamp applications. This information is in addition to the income, social security number, and certain medical and utility expenses which had to be documented in the past. The additional information includes proof of all shelter expenses, all child care expenses, and household size. In addition, states would be allowed to compile a profile of the types of applicants that are most subject to error and require verification of all information on cases which fit that category.

On January 1, 1981, food stamp households received an 11.5 percent increase in food stamp benefits. This translates to an increase to \$233 per month, up from \$209, for a family of four with no net income.

Grasshopper Program

During 1980, 5.3 million acres of rangeland in 10 western states were treated to suppress major infestations of grasshoppers--this was the second largest effort in the program's 46 years (7.2 million acres were treated in 1979.) The drought, a late cool spring, and Mt. St. Helens ash suppressed grasshopper outbreaks which would have caused a greater treatment program.

Medfly

Three counties in California were quarantined in 1980 because of Mediterranean fruit fly outbreaks. All fruit and vegetables in the affected counties had to be inspected and treated before shipment to all states except Hawaii, where the pest is prevalent. The medfly is capable of damaging millions of dollars of fruit and vegetables if controls are not successful. Los Angeles and Alameda counties were removed from quarantine by mid-January, but Santa Clara county remained infested. A coordinated effort was planned to eradicate the pest from the remaining county.

International Trade

Bilateral Agreements

China. On September 17, China and the United States concluded four agreements: (1) civil aviation, which provides for regularly scheduled direct flights between the two countries; (2) a consular convention that spells out the duties of consular officers in providing services to citizens of both countries; (3) a maritime agreement that opens each country's ports to the other country's ships; and (4) a textile agreement which limits the volume of Chinese cotton, wool, and synthetic fiber products shipped to the United States from January 1, 1980, through 1982.

On October 21, the United States signed an agreement providing for sales of 6 to 9 million tons of U.S. wheat and corn annually to China from January 1, 1981, through calendar 1984. Intentions to purchase more than 9 million tons require notification of the U.S. Government. Approximately 15 to 20 percent of the grain will be corn.

Brazil. Effective October 1, Brazil's export tax on hides was reduced from 36 percent to 18 percent. In return, the United States agreed to continue to allow imports of leather goods from Brazil without additional restrictions. The agreement is effective for one year.

Mexico. The United States agreed to supply Mexico at least 6 million tons of agricultural commodities in calendar year 1981. In the December 3 agreement, Mexico may purchase up to 3.0 million tons of sorghum, 2.25 million tons of corn, 1.0 million tons of soybeans, and 850,000 tons of U.S. wheat. Mexico became a \$2 billion U.S. market in 1980, exceeded only by Japan and the Netherlands.

U.S. Actions on Import Quotas

Mushrooms. President Carter issued a proclamation on October 31 which increased U.S. tariffs on imported canned mushrooms for the next 3 years. The duty of 3.2 cents per pound will be maintained, but the additional 10 percent ad valorem duty was increased to 30 percent for the first year, 25 percent for the second year, and 20 percent for the third year. The action was in response to both the USITC (International Trade Commission) finding that increased imports had injured the domestic mushroom industry, and the Commission's recommendation of import quotas for 3 years as a remedy. The President also appointed a White House Task Force to help with technical and financial assistance as the industry adjusts to increased imports.

Peanuts. Responding to a 42 percent decrease in the U.S. peanut crop which will cut domestic supplies 37 percent from last year's level, the Administration on December 5 took emergency action to allow an additional 200 million pounds of edible peanut imports above the 1.7-million-pound quota. In effect since 1953, the import quota has been exceeded only in 1955 and 1956, also because of domestic shortages. As of January 20, 1980, a total of 1,658,927 pounds of quota peanuts had been imported.

New export credit program launched

Effective September 26, USDA began GSM-301, a new intermediate credit export program administered by the Commodity Credit Corporation. Authorized by the Trade Act of 1978, the new program can finance U.S. agricultural export sales for periods of 3 to 10 years. Local currency generated from the sale of the U.S. commodities in the importing country will be used to establish facilities to improve the handling, marketing, processing, storage, or distribution of imported commodities. The purpose of GSM-301 is to develop and expand foreign markets for U.S. agricultural commodities.

U.S. exporter registration required

All U.S. firms exporting grain to foreign buyers must now register with the U.S. Government. New regulations, under the U.S. Grain Standards Act, require firms exporting 15,000 metric tons or more per year to register with USDA's Federal Grain Inspection Service (FGIS) by October 10. Regulations require annual registration for the calendar year; however, the initial registration was for the period October 10, 1980, through December 31, 1981. For applicants engaged only in foreign commerce grain business, the initial fee is \$169. Applicants who also own 10 percent or more interest in any other businesses involved in interstate grain commerce must pay twice that amount.

Meat Importation

Guatemala. USDA blocked meat imports from Guatemala last August due to excessive levels of pesticide residues. Since then Guatemala placed beef export production under government control and strengthened its residue inspection and control program. Consequently, USDA has reapproved the meat imports; however, such shipments will be held at U.S. ports of entry until laboratory tests show the products meet U.S. standards.

Quota. In late November, USDA estimated unrestricted meat imports in 1981 at 1,458 million pounds, slightly above the 1,447 million pound trigger determined by the Meat Import Act formula. In the event of an estimated level greater than the trigger level, the Act requires the President to apply the quota, calculated at 1,315 million pounds for 1981. However, the President also has the option of suspending the quota and allowing unlimited imports, or negotiating voluntary restraint agreements with meat exporters to hold the import level slightly below the trigger level. President Carter announced his intention in early December to suspend the quota. Most of the public comments received during the comment period expressed opposition to allowing unlimited meat imports. Subsequently, the Carter Administration deferred the meat-import policy decision to the new Reagan Administration.

El Salvador. USDA stopped meat imports from El Salvador last March because of excessive levels of pesticide residues. Due to changes in that country's meat inspection program, USDA in December reapproved shipment of meat products to the United States. However, the meat will be inspected at U.S. ports of entry for compliance with U.S. laws. El Salvador supplied less than 1 percent of U.S. beef imports in 1979.

POLICY RESEARCH NEWS ITEMS

Meeting Contributes to New Grain Trade and Policy Research Proposal

The International Economics Division of USDA hosted a meeting of the NC-139 Grain Marketing Research Group on February 12-13, 1981, in Washington, D.C. The NC-139 Committee is developing a new 5-year proposal that will include research on the relationship between agricultural and trade policies and the U.S. and world grain marketing systems. Representatives of FAS, the World Bank, and IFPRI also participated in the meeting. The conference contributed to the development of a new grain marketing research proposal which will give greater emphasis to international grain trade issues.

Inquire about this new research thrust from Lowell Hill, chairman, NC-139, Department of Agricultural Economics, 305 Mumford Hall, 1301 West Gregory Drive, University of Illinois, Urbana, IL 61801.

Agriculture and International Relations -- Analysis and Policy

A memorial seminar honoring the work of the late Theodor Heidhues was held in West Germany, sponsored by the University of Gottingen, on November 6-8, 1980. A limited number of invited economists from various parts of the world participated in analyzing selected policy issues related to agriculture in an international setting. The papers will be published.

Inquire about this seminar and one of the papers from one of the seminar presenters, Jimmie S. Hillman, Department of Agricultural Economics, University of Arizona, Tucson, AZ 85721.

World Wheat Model for Trade Policy Analysis

A world wheat model incorporating constant elasticity, regional consumption, and stock demand is being developed in this research. A spatial equilibrium solution is obtained using a nonlinear optimization procedure which allows trade distortions such as tariffs and bilateral agreements. Effects of trade distortions upon short-run and long-run U.S. export demand will be investigated.

Inquire about this research from Forrest Holland, Department of Agricultural Economics, Purdue University, West Lafayette, IN 47907.

Market Share Analysis of World Trade in Major U.S. Crops

This is a descriptive study of factors affecting the U.S. share of major world agricultural markets. Importer and exporter market shares are analyzed for the period from 1960-1979 for soybeans, coarse grains, wheat, cotton, and rice. Trends are identified and the prospects for future changes in shares are discussed.

Inquire about this study and request a related paper by the above title from Alan J. Webb, IED, ESS, USDA, GHI Building 361, 500 12th St. S.W., Washington, DC 20250.

Seminar Held on International Affairs and U.S. Agriculture

The 8th annual seminar on Agricultural Marketing and Policy for 1980 at the University of Missouri was devoted to the subject of International Affairs and U.S. Agriculture. Papers were presented on such topics as "Global Food Politics," "The Political Economy of the World Grain Trade," and "Future Looks at World Trade."

Inquire about this activity and request a copy of the seminar proceedings entitled, International Affairs and U.S. Agriculture, Missouri Agricultural Experiment Station Special Report 259, 1980, from Harold F. Breimyer, Department of Agricultural Economics, University of Missouri, Columbia, MO 65211.

Trade Restrictions in International Grain and Oilseed Markets

A review of trade restrictions imposed by major importing and exporting countries of grains and oilseeds was made and the degree of protection, or the extent to which trade barriers distort internal prices from world levels, was estimated. Results indicate wheat and rice are the most heavily protected markets followed by corn and soybeans.

Inquire about this study and request a related publication titled, Trade Restrictions in International Grains and Oilseeds Markets: A Comparative Country Analysis, USDA, FAER No. 162, January 1981, from the author, Cathy L. Jabara, 500 12th St. S.W., IED, ESS, USDA, Washington, DC 20250.

Policy Implications of World Oilseed Situation on U.S. Soybean Industry

This research is an effort to build an econometric simulation model capable of analyzing the impact of changing conditions and government policies affecting world oilseeds and oilseed derivatives markets on the U.S. soybean industry. The model includes six major oilseeds (soybeans, peanuts, cottonseed, rapeseed, palm kernels and copra) and their oil and meal derivatives in eight world regions (U.S., Japan, Canada, Africa, Asia and Oceania, and a Rest of the World region). Research is currently at the simulation validation stage.

Inquire about this research from Gary W. Williams, IED, ESS, USDA, Room 361, 500 12th St. S.W., Washington, DC 20250.

Bilateral Trade Agreements

A theoretical analysis of the effect of bilateral trade agreements on the stability of world grain markets is being carried out. A simple mathematical model has been defined and empirical testing will begin shortly.

Inquire about this research and the availability of a working paper about the project from Alan J. Webb, IED ESS, USDA, GHI Building, Room 361, 500 12th St. S.W., Washington, DC 20250.

U.S. Wheat Board Study

A three phase study examines the consequences of establishing a marketing board for wheat in the U.S. The study reviews wheat marketing in Canada and Australia, and compares it to the U.S. The study also uses stochastic simulation models to analyze the impacts of forming a U.S. Government Wheat Export Board, and a Producer Board with domestic and export control.

Inquire about this study from Philip L. Paarlberg, Trade Policy Branch, IED, ESS, USDA, Washington, DC 20250.

Smallfarming Conference Held in United Kingdom

The first annual conference of a Smallfarmers' Association of the United Kingdom was held at the University of Reading in March 1980. Conference participants stressed the importance of smallfarmers to society. Ways of stemming the decline in the

number of small farms were outlined and reasons for their encouragement put forward. Papers were presented from both the landowners' and the smallfarmers' viewpoints.

Inquire about this activity from J. C. Bowman, Centre for Agricultural Strategy, University of Reading, 2 Earley Gate, Reading, England RG6 2AU, and request a copy (cost of 2.00 English pounds) of the proceedings of this conference, Smallfarming and the Nation, R. B. Trantor, editor, CAS Paper 9, 1981, from the above address.

Middle East OPEC Food Import Demand

On-going research analyzes food import demand trends in eight Middle Eastern OPEC countries through 1990. The study includes descriptions of the agricultural sectors in each country and uses econometric modeling techniques to predict demand for 73 commodities.

Inquire about this study and request a related paper by the above title from Ahmed Abou-Bakr and James Coyle (ph 202-447-8054), Africa and Middle East Branch, IED, ESS, USDA, 500 12th Street S.W., Washington, DC 20250.

Food Problems and Prospects in Sub-Saharan Africa

The study reviews national policies relating to food production and consumption, and uses a multi-equation model incorporating income and price effects to project supply and demand for major food crops through 1990. The study forecasts a deficit of 11.5 million tons in 1990 if food prices and per capita income remain at 1975 levels. This is more than double the 1979 deficit.

Inquire about this study from Cheryl Christensen (ph 202-447-8054), Africa and Middle East Branch, IED, ESS, USDA, 500 12th Street S.W., Washington, DC 20250, and request a related paper titled, "Food Problems and Prospects in Sub-Saharan Africa" from Publications Division, Office of Governmental and Public Affairs, USDA, Washington, DC 20250.

Government Policy, Income Distribution, and Wheat Production in Turkey

This case study examines the nature of the technological change powering the increase in wheat production and the government's policies relative to this sector. Wheat production in Turkey has risen from four million tons in 1950 to 16 million tons in 1980. This study suggests that within the context of greater aggregate income from wheat, there have been substantial shifts in its relative distribution. Policies that would distribute the gains more widely are identified.

Inquire about this study and about the availability of a related paper titled "The Effects of Government Policy on Income Distribution: A Case Study of Wheat Production in Turkey," in Political Economy of Income Distribution in Turkey, 1980, from Charles K. Mann, Rockefeller Foundation, 1133 Avenue of the Americas, New York, NY 10036.

Urbanization and Agricultural Policy in Egypt

This study examines the relationships in Egypt between policies and urbanization, and the effects of each on the other. That country is experiencing tremendous growth in its urban areas largely as a result of Egyptian agricultural policies that affect domestic agricultural production and food imports.

Inquire about this study and request a related USDA IED 1981 working paper titled, "Urbanization and Agricultural Policy in Egypt," from John B. Parker or James R. Coyle (ph 202-447-8378), Africa and Middle East Branch, USDA ESS, 500 12th Street S.W., Washington, DC 20250.

Newest Edition of "Increasing Understanding of Public
Problems and Policies" Released

The proceedings of the 1980 National Public Policy Education Conference are now available as Increasing Understanding of Public Problems and Policies - 1980, Farm Foundation, 191 pp. Topics include: Dispersed vs. Concentrated Agriculture; Ethics of Public Policy; Productivity; Rural Transportation; Energy Policy Issues; and Policy Educational Approaches.

Inquire about the availability of this publication from the Cooperative Agricultural Extension Service of your State or Farm Foundation, 1211 West 22nd St., Oak Brook, IL 60521.

Heritage Foundation Papers on the USDA Transition

The Heritage Foundation arranged for teams to review issues and make recommendations relative to future direction of federal policy. Chapters on agriculture are included in two of the publications. These books are intended for use by the new Administration in guiding the Executive Branch. The coverage for agriculture included matters of programs, organization, personnel, and budget.

Inquire about this activity from Don Paarlberg, 1214 Hayes, West Lafayette, IN 47906.

Order the books as follows: (1) Agenda For Progress, edited by Eugene McAllister, contains a chapter on Agriculture by Don Paarlberg and Eric V. Robinson. 1981. 375 pp. (charge of \$6.95 for paperback). (2) Mandate For Leadership, edited by Charles Heatherley, contains a chapter on Agriculture by Don Paarlberg. 1981. 1093 pp. (charge of \$12.95 for paperback). Both are available from Heritage Foundation, 513 C. Street N.E., Washington, DC 20002.

How Farmers View Agricultural and Food Policy Issues

A random sample of farmers in ten states (Illinois, Indiana, Michigan, Minnesota, Nebraska, North Dakota, Ohio, Oregon, Texas, and Washington) was surveyed in November and December 1980, and January 1981, to determine their opinions about several current policy issues, e.g., the export embargo, grain reserves, price support levels, etc.

A similar survey was taken during the months preceding the development of the 1977 Food and Agriculture Act.

A composite report will be published and distributed to the House and Senate Agriculture Committees in March. Individual states have issued reports of their findings.

Inquire about this survey and request copies of the reports from extension policy specialists in participating states or from Harold D. Guither, Department of Agricultural Economics, 305 Mumford Hall, University of Illinois, 1301 W. Gregory Drive, Urbana, IL 61801.

Agricultural Policy Issues and Implications in Developing
the 1981 Farm Bill

A review was made and published relative to new agricultural and food policy. With the expiration of current agricultural legislation in 1981, a new or revised farm bill will be debated. The issues, alternatives and implications with respect to the 1981 farm bill were analyzed.

Inquire about this review, and request a copy of the report, "Agricultural Policy Outlook for 1981," appearing in Wisconsin Economic Issues, No. 54, January 1981, from either of the authors, Truman F. Graf and William Dobson, Department of Agricultural Economics, 316 Agriculture Hall, University of Wisconsin-Madison, Madison, WI 53706.

Domestic and International Grain Reserve Policies

An assessment is being made of the role of U.S. grain stocks in world grain markets. Also, an alternative grain reserve program for the U.S. is being examined -- a farmer reserve consisting only of subsidized storage with no government restrictions on when the grain could be sold.

Inquire about this research from Jerry A. Sharples or Forrest D. Holland, Department of Agricultural Economics, Purdue University, West Lafayette, IN 47907.

Analyses of the Farmer-Owned Reserve Program

The farmer-owned reserve for wheat and corn is being analyzed on two levels. The first is an analysis of farmers' response to the reserve based on a model of the farm management decision and on an evaluation of farm survey data. The second is an evaluation of the impacts of the reserve operation on market structure and behavior using a model of aggregate reserve behavior in concert with supply and demand models of the wheat and corn markets.

Inquire about this study from William H. Meyers, 568 East Hall, Iowa State University, Ames, IA 50011.

Request two related papers from the above author: (1) "The Farmer-owned Reserve: How is the Experiment Working?" ASSA paper, 1980; and (2) "Farmer's Response to the Reserve: An Analysis of Economic and Structural Factors," Iowa State Staff Paper, 1980.

Structure of Agriculture: Causes, Consequences, and Policy Implications

Southern Regional project S-148 is focusing on the origins, consequences, and policy implications of shifts in the structure of agriculture. The project is attempting to identify strategies and emerging orientations towards entry, growth, and survival in a turbulent socioeconomic environment. Attention is being given to the nonmonetary satisfactions, tradeoffs, and adjustments of farm families with multiple sources of income.

Inquire about this study and request a related report titled, The Structure of Black-Operated Agriculture in Alabama, Alabama Agricultural Experiment Station Circular 246, 1980, from the current project chairman and senior author, Joseph J. Molnar (ph 205-826-4800), Department of Agricultural Economics and Rural Sociology, Auburn University, AL 36849.

Small Farms Research Reports Now Available

Reports are now available (charge) on seven problem areas under phase II of the National Rural Center Small Farms Project (reported in previous Notes) in which an assessment was made of the state of knowledge in the professional literature by teams of researchers as follows:

1. Public Agricultural-Food Policies and Small Farms by R.G.F. Spitze, Daryll E. Ray, Alan S. Walter, and Jerry G. West, 1980, 96 pp (\$7.50).

2. Energy and Small Farms by Frederick H. Buttel, William Lockeretz, Martin Strange, and Elinor C. Terhume, 1980, 63 pp. (\$7.50).
3. The U.S. Tax System and the Structure of American Agriculture by Charles A. Sisson, 1980, 46 pp. (\$7.50).
4. Marketing and the Small Farmer by Alan R. Thompson, 1980, 76 pp. (\$7.50).
5. Off-Farm Earnings and Small Farms by Dewitt Jones, Ronald J. Hanson, John C. Crecink, and Sammy Comer, 1980, 69 pp. (\$7.50).
6. Production Efficiency and Technology for Small Farms by J. Patrick Madden, Delworth B. Gardner, Diana S. Branch, David Holland, and Howard A. Osborn, 1980, 157 pp. (\$10.00).
7. Structure of Agriculture and Information Needs Regarding Small Farms by Luther Tweeten, Wallace Huffman, Steven T. Sonka, and Richard Rodefeld, 1980, 210 pp. (\$10.00).

A report under phase I of the project can also be purchased under the title: Towards a Federal Small Farms Policy, 172 pp. (\$3.00).

Above publications available from Publications, National Rural Center, 1828 L Street N.W., Suite 1000, Washington, DC 20026.

Policy Issues Relative to Chicano Rural Labor Market

A survey was made of Chicanos in the agricultural labor market in two rural communities of Northern California. This study provided information regarding Chicano employment status, characteristics of the families, self perceptions, and Chicano human resource skills and interests.

Inquire about this study and request a copy of a summary of the study, titled "Chicanos in Rural Labor Markets" published in Micro Ondas, from Refugio I. Rochin, Department of Agricultural Economics, University of California, Davis, CA 95616.

ALINET: A Model for Assessing Energy Questions in Food Processing

ALINET, a network model of the U.S. food processing and distribution sector, has been designed as a tool for analyzing energy use and for evaluating specific energy conserving technologies. The model was used in the analysis of wheat processing. The results of a pilot study in which an alternative technology -- microwave drying -- was simulated in the pasta making process, showed a net reduction in fossil fuel as well as electricity use and an increase in plant productivity.

Inquire about this research and request a related paper "ALINET: A Model for Assessing Energy Conservation Opportunities in Food Processing," in Proc. Nat'l ASAE Energy Symposium, Kansas City, 1980 from Alexander Levis, Laboratory for Information and Decision Systems, Massachusetts Institute of Technology, Cambridge, MA 02139.

Food in the Wage and Price Stability Experience

A review is being developed concerning the effects of price standards, under the Council of Wage and Price Stability, on the food and agricultural industries. Prior to the termination of the Council, it is issuing a more comprehensive report evaluating the experience of the entire pay and price standards/ evaluating the experience of the entire pay and price standards program.

Inquire about this review and the accessibility of the report from a former Council staff member, Stephen J. Hiemstra, OPP & E, Food and Nutrition Service, U.S.D.A., Washington, DC 20250.

Farm Credit Act Amendments of 1980

On December 13, 1980, the Senate concurred in House amendments (HR7548), sending the bill to the President for signature. Major features dealt with cooperative export financing, 97 percent of value FLB loans where a government guarantee exists, expanded aquatic financing, increased authority to finance on-farm processing and marketing facilities, and standards for offering insurance services and for providing FICB discounting of agricultural loans made by commercial banks.

Inquire about research on this policy development from George D. Irwin, Farm Credit Administration, 490 L'Enfant Plaza S.W., Washington, DC 20578.

Economics of Small-Scale Alcohol Fuel Production

Economic research is underway on the feasibility of small-scale alcohol production. Researchers representing Economics, Agricultural Engineering, Microbiology, and Dairy Science are using data from a pilot alcohol plant on the South Dakota State University campus. Preliminary findings are now available, based on the first year's operation of this plant.

Inquire about this research, and request a related paper titled, "Preliminary Cost Estimates-Producing Alcohol from a Small-Scale Plant," from Thomas Dobbs, Extension Economist, Box 504 A, South Dakota State University, Brookings, SD 57007.

Estimating Impacts of Restricting Pesticide Use

Research was pursued in which six essential steps in estimating market benefits of continued use of pesticides were described. Three feasible methods -- interregional competition programming, econometric simulation, and the much used partial budgeting -- are evaluated. Graphical analysis of change in consumer plus producer surplus is presented as well as graphical analysis of regional redistribution under alternative demand elasticities.

Inquire about this research and request a related report titled, Social and Economic Impacts of Restricting Pesticide Use in Agriculture, CAST 86, December 1980, from Arnold Paulsen, East Hall, Iowa State University, Ames, IA 50011.

Workshop on Land Use Policy Simulation Model

NE-125 (Socio-economic Factors and Rural Land Use) along with the Farm Foundation is sponsoring a workshop to develop a Land Use Policy Simulation Model. The Workshop will be held March 25-26, 1981 in Hartford, Conn.

Inquire about this workshop from Dale Colyer, Division of Resource Management, 2016 Agricultural Science Building, West Virginia University, Morgantown, WV 26506.

Analysis of the Effects of the Wisconsin Farmland Preservation Law

An analysis has been completed of the effects of Wisconsin's farmland preservation law including: (1) participation by counties in land use planning and zoning; (2) participation by farmers in restrictive agreements; (3) survey of participants and non-participants; (4) distribution of tax credits under the circuit-breaker formula; (5) the land use effects of exclusive agricultural zoning; and (6) conservation impacts.

Inquire about this research and a series of related staff papers from Richard Barrows, 350 Agriculture Hall, University of Wisconsin, Madison, WI 53706.

Agricultural Land Conversion Study in Colorado

Conversion of agricultural land and water to urban and industrial uses is an issue under investigation at the Colorado Department of Agriculture. The study will develop recommendations for slowing this conversion, to be the basis for policy review and possible development.

Inquire about this research, and request copies of related publications, Agricultural Land Conversion in Colorado, Volumes 1, 2, and 3, from Warren L. Trock, Extension Economist, Department of Economics, Colorado State University, Fort Collins, CO 80523.

Farm-Size Relationships with Emphasis on California

A team of eight researchers at the University of California-Davis studied the issues related to farm size, particularly in that state. A resulting report includes separate chapters dealing with scale and related factors such as taxes, government policy, marketing, energy, farm labor and the community.

Inquire about this research, and request a copy of a research report with the above title issued by the Giannini Foundation, from one of the principal investigators, Hal Carter, Department of Agricultural Economics, University of California, Davis, CA 95616.

Water/Growth Issues in El Dorado County, California

A project was recently completed in California on whether a county should fund an additional water development project. A team of county and state Extension staff considered and published the impacts of different water development alternatives. The impacts on population growth, land use, housing, employment, income, recreation, environmental quality and social-political trends were considered.

Inquire about this study, and request a report with the above title on the project, from George Goldman, 318 Giannini Hall, University of California, Berkeley, CA 94720.

Direct Marketing as a Policy Tool in Washington Agriculture

This study examined Direct Marketing as an alternative marketing tool for Washington farmers. The analysis also explored this marketing approach as an alternative policy tool for aiding small farmers.

Inquire about this study, and request Washington State Agricultural Research Bulletin 0890 by the above title, from A. Desmond O'Rourke, Department of Agricultural Economics, Washington State University, Pullman, WA 99164.

Policy Information on Scale Issues in Wisconsin Cheese Plants

This study analyzed cost and financial performance for 44 Wisconsin cheese plants. The average cost of processing cheese in 1978 was 11.4 cents per pound of cheese or \$1.09 per hundredweight of milk processed into cheese. Return on total assets averaged 7.5 percent and return on equity was 19.7 percent, on a before income tax basis. Most of the variation in total costs among plants was associated with volume of cheese production, but no economies of size were identified. That is, the average processing cost did not decline as plant size increased.

Inquire about this study and request a related paper titled "Cost and Financial Performance of Wisconsin Cheese Plants," SB No. 299, from Emerson M. Babb, Department of Agricultural Economics, Purdue University, West Lafayette, IN 47907.

POLICY RESEARCH PUBLICATIONS AVAILABLE
(listed as submitted)

BLAKESLEE, LEROY. Post-World War II Government Policy Impacts on the U.S. Wheat Sector. Technical Bulletin 0093, Washington State University College of Agriculture Research Center.

Request this bulletin from Office of Publications, Washington State University, Pullman, WA 99164.

BLANDFORD, DAVID, RICHARD N. BOISVERT, and PEDRO ALBA. Export Promotion and Trade Adjustment Assistance Priorities in the Northeast. Cornell Agricultural Economics Staff Paper No. 80-14, June 1980.

Request this paper from 205 Warren Hall, Cornell University, Ithaca, NY 14853.

BOGGESE, WILLIAM, and EARL O. HEADY. A Separable Programming Analysis of Price, Income and Soil Conservation Practices. Iowa State CARD Report No. 88.

Request this report from Earl O. Heady, Center for Agricultural and Rural Development, 578 East Hall, Iowa State University, Ames, IA 50011.

BREIMYER, HAROLD F. Our Common Future--Atlantis, Armageddon, or Something in Between? Missouri Agricultural Economics Paper No. 1980 - 19, June 26, 1980.

Request a copy of this speech from Harold F. Breimyer, Department of Agricultural Economics, University of Missouri, Columbia, MO 65211.

BREIMYER, HAROLD F. Land: Agronomics, Economics, and Institutional Stress. Missouri Agricultural Economics Paper No. 1981 - 1, January 6, 1981.

Request a copy of this speech to AAAS from Harold F. Breimyer, Department of Agricultural Economics, University of Missouri, Columbia, MO 65211.

CHARLES, CLIFTON F., DAVID BLANDFORD, and RICHARD N. BOISVERT. Economic Feasibility of Import Substitution of Livestock Feed in the Caribbean Community. Cornell International Agriculture Mimeograph No. 80, July 1980.

Request this paper from 205 Warren Hall, Cornell University, Ithaca, NY 14853.

DAINES, DAVID, and EARL O. HEADY. Potential Effects of Policy Alternatives on Regional and National Soil Loss. Iowa State CARD Report No. 90.

Request this report from Earl O. Heady, Center for Agricultural and Rural Development, 578 East Hall, Iowa State University, Ames, IA 50011.

DRABENSTOTT, MARK, and EARL O. HEADY. Small Family Farms in American Agriculture. Iowa State CARD Report No. 96.

Request this report from Earl O. Heady, Center for Agricultural and Rural Development, 578 East Hall, Iowa State University, Ames, IA 50011.

FOLWELL, R.J., and H. SHAPOURI. An Econometric Model of the U.S. Livestock and Broiler Sectors. Technical Bulletin 0094. Washington State University College of Agriculture Research Center. 1980.

Request this bulletin from Office of Publications, Washington State University, Pullman, WA 99164.

GUITHER, HAROLD D., and OTTO DOERING, editors. The Family Farm and Other Choices - Issues Concerning the Structure of Agriculture. North Central Regional Extension Publication 143, December 1980.

Request publication from Harold D. Guither, Department of Agricultural Economics, 305 Mumford Hall, University of Illinois, 1301 West Gregory Drive, Urbana, IL 61801.

HAJADA, JOSEPH. "The Soviet Grain Embargo." SURVIVAL, November/December 1980.

Order this publication (charge of \$4 per copy) from the International Institute for Strategic Studies, 23 Tavistock St., London WC2E 7Q, England.

HALLBERG, M.C. Stability in the U.S. Dairy Industry Without Government Regulations. Pennsylvania State University Department of Agricultural Economics and Rural Sociology Staff Paper 37, November 1980.

Request this paper from M.C. Hallberg, 101 Weaver Building, Pennsylvania State University, University Park, PA 16802.

HARBERT, LLOYD S., and DAVID BLANDFORD. Trade Adjustment Assistance and the U.S. Sugar Industry. Cornell Agricultural Economics Research No. 80-13, June 1980.

Request this paper from 205 Warren Hall, Cornell University, Ithaca, NY 14853.

HOLLAND, FORREST D., and JAMES E. PRATT. Mess: A Fortran Program for Numerical Solution of Single Commodity Multi-Market Equilibrium Problems with Nonlinear Supply and Demand Functions and Flow Distortions. Bulletin No. 296. Purdue University Agricultural Experiment Station Bulletin.

Request this bulletin from Forrest Holland, Department of Agricultural Economics, Purdue University, West Lafayette, IN 47907.

HOUCK, JAMES P. "U.S. Agricultural Trade and the Tokyo Round." Law and Policy in International Business. Volume 12:265 (1980).

Request copy of this article from James Houck, Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, MN 55108.

HUANG, WEN, REUBEN WEISZ, and EARL O. HEADY. An Econometric Programming Model for Agricultural Policy Analysis. Iowa State CARD Report No. 95.

Request this report from Earl O. Heady, Center for Agricultural and Rural Development, 578 East Hall, Iowa State University, Ames, IA 50011.

JABARA, CATHY L. Terms of Trade for Developing Countries: A Commodity and Regional Analysis. Foreign Agricultural Economic Report No. 161. November 1980.

Request this report from Cathy L. Jabara, 500 12th St. S.W., USDA IED ESS, Washington, DC 20250.

KRAMER, RANDALL A., and RULON D. POPE. "Participation in Farm Commodity Programs: A Stochastic Dominance Analysis." American Journal of Agricultural Economics. February 1981.

Request a copy of this article from Randall Kramer, Department of Agricultural Economics, VPISU, Blacksburg, VA 24061.

LEE, SEON, and DAVID BLANDFORD. "Buffer Stock Price Stabilization: An Application of Optimal Control Theory." Search: Agriculture. Cornell University Agricultural Experiment Station No. 11, 1980, 24 pp.

Request this paper from the Distribution Center, 7 Research Park, Cornell University, Ithaca, NY 14853.

LEE, SEON, and DAVID BLANDFORD. "An Analysis of International Buffer Stocks for Cocoa and Copper through Dynamic Optimization." Journal of Policy Modeling 2(1980): 371-388.

Request a copy of this article from 205 Warren Hall, Cornell University, Ithaca, NY 14853.

LEE, SEON, and DAVID BLANDFORD. Use of Dynamic Optimization to Evaluate a Buffer Stock for Cocoa. Cornell Agricultural Economics Staff Paper No. 80-20, July 1980.

Request this paper from 205 Warren Hall, Cornell University, Ithaca, NY 14853.

MAN, ABU BAKAR, and DAVID BLANDFORD. Petroleum Prices and the Market for Natural Rubber. Cornell Agricultural Economics Staff Paper No. 80-20, July 1980.

Request this paper from 205 Warren Hall, Cornell University, Ithaca, NY 14853.

MARTIN, MARSHALL A. "The New Federal Crop Insurance Program." Purdue Farm Management Report. December 1980, pp. 1-4.

Request this paper from Marshall A. Martin, Department of Agricultural Economics, Room 563 Krannert Building, Purdue University, West Lafayette, IN 47907.

MARTIN, M.A., R.L. KOHLS, and J.C. BOTTUM. "General Monetary and Fiscal Policy Alternatives." Purdue Farm Management Report. October 1980, pp. 1-2.

Request a copy of this paper from Marshall A. Martin, Department of Agricultural Economics, Room 563 Krannert Building, Purdue University, West Lafayette, IN 47907.

MEEKHOF, RONALD L., WALLACE E. TYNER, and FORREST D. HOLLAND. "U.S. Agricultural Policy and Gasohol: A Policy Simulation." American Journal of Agricultural Economics 62(1980):408-415.

Request this paper from Forrest Holland, Department of Agricultural Economics, Purdue University, West Lafayette, IN 47907.

MORENTZ, DEBORAH S. Effects of Recent Changes in the Food Stamp Program on Participation and Food Consumption of Participating Households in Tompkins County, N.Y. Cornell Agricultural Economics Research No. 80-30, November 1980, 20 pp.

Request this research report from Kenneth L. Robinson, 40 Warren Hall, Cornell University, Ithaca, NY 14853.

MUNCHKAMI, RAMESH, and HAROLD F. BREIMYER. Leading Missouri Farmers Give 1980 Opinions on Farm Policy. MP 516, Extension Division, University of Missouri, 1980.

Request this release from Harold F. Breimyer, Department of Agricultural Economics, University of Missouri, Columbia, MO 65211.

PAARLBERG, PHILIP L., and ROBERT L. THOMPSON. "Interrelated Products and the Effects of an Import Tariff." Agriculture Economics Research. October 1980.

Request this article from Philip L. Paarlberg, Trade Policy Branch, IED, ESS, USDA, Washington, DC 20250.

SCHNITTKER ASSOCIATES. Ethanol: Farm and Fuel Issues. Prepared for the U.S. National Alcohol Fuels Commission. Document Number: PB80215692.

Request this publication (charge of \$14 per copy for fourth class and \$17 for first class) from NTIS, 5258 Port Royal Road, Springfield, VA 22161.

SCHNITTKER, JOHN A., editor. A U.S. Initiative Toward World Food Security. Published by Grains Policy Panel of the Economic Policy Council of the U.N. Association of the U.S.A. October 1980.

Request this publication (charge of \$3 per copy plus postage and handling) from Ms. Maureen Merriman (ph 212-697-3232). U.N. Association of USA, 300 E. 42nd St., New York, NY 10017.

SCHNITTKER, JOHN A., and MARTIN E. ABEL. "Politics and Economics of Food Aid and Food Trade." Society. Vol. 17, September-October 1980.

Request a copy of this journal (charge of \$5 per copy including postage) from Ms. Barbara Lorenc (ph 201-932-2280), Transaction Inc., Rutgers--The State University, New Brunswick, NJ 08903.

SHARPLES, JERRY A. An Examination of U.S. Wheat Policy Since 1977 With Emphasis on the Farmer-Owned Reserve. IED Staff Report No. 1981-5, IED, USDA.

Request this report from Jerry A. Sharples, Department of Agricultural Economics, Purdue University, West Lafayette, IN 47907.

SHARPLES, JERRY A., and FORREST D. HOLLAND. Impact of Farmer-Owned Wheat Reserve on Total Wheat Stocks and Price. IED Staff Report, IED, USDA April 1980.

Request this report from Jerry Sharples or Forrest Holland, Department of Agricultural Economics, Purdue University, West Lafayette, IN 47907.

SONG, DAE HEE, and M.C. HALLBERG. Are Dairy Programs Biased Toward Producers or Consumers? Pennsylvania State University Agricultural Economics and Rural Sociology Staff Paper No. 38, November 1980.

Request this paper from M.C. Hallberg, 101 Weaver Building, Pennsylvania State University, University Park, PA 16802.

SPITZE, R.G.F. Future Agricultural and Food Policy. University of Illinois Agricultural Economics Staff Paper No. 81 E-155, January 1981. 20 pp.

Request this paper from Publications, Department of Agricultural Economics, 305 Mumford Hall, 1301 W. Gregory Drive, Urbana, IL 61801.

SPITZE, R.G.F., and MARSHALL A. MARTIN, editors. Analysis of Food and Agricultural Policies for the Eighties. North Central Regional Research Publication No. 271, Illinois Bulletin 764. November 1980. 163 pp.

Request this bulletin from either of the editors, address below (or possibly the Agricultural Experiment Station of your State): R.G.F. Spitze, Department of Agricultural Economics, 305 Mumford Hall, 1301 W. Gregory Drive, Urbana, IL 61801, or Marshall A. Martin, Department of Agricultural Economics, Room 563 Krannert Building, Purdue University, West Lafayette, IN 47907.

STANDAERT, J.E., L.L. BLAKESLEE, and R.J. FOLWELL. Price and Demand Constraints on Lean Beef Production in the U.S., 1980. Technical Bulletin 0095. Washington State University College of Agriculture Research Center.

Request this bulletin from Office of Publications, Washington State University, Pullman, WA 99164.

STANTON, B.F. Gaining Perspective on the Changing Structure of Farming. Cornell Agricultural Economics Staff Paper No. 80-28, November 1980.

Request this paper from B.F. Stanton, Department of Agricultural Economics, Cornell University, Ithaca, NY 14853:

STAVINS, R.N., and B.F. STANTON. Using Markov Models to Predict the Size Distribution of Dairy Farms, New York State, 1968-1975. Cornell Agricultural Economics Research No. 80-20, December 1980

Request this research paper from B.F. Stanton, Department of Agricultural Economics, Cornell University, Ithaca, NY 14853.

